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THE IMPACT OF UNIVERSITY HOUSING CONSTRUCTION TYPE ON PSYCHOSOCIAL DEVELOPMENT OF FIRST-YEAR STUDENTS

Justin Owens
Clemson University, justintylerowens@gmail.com

THE IMPACT OF UNIVERSITY HOUSING CONSTRUCTION TYPE ON PSYCHOSOCIAL DEVELOPMENT OF FIRST-YEAR STUDENTS

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Justin Tyler Owens
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Accepted by:
Dr. Tony W.Cawthon, Committee Chair
Dr. David E. Barrett
Dr. James W. Satterfield
Dr. Frankie K. Williams

ABSTRACT

The purpose of this study was to explore the impact of university housing construction type on psychosocial development of first-year students. Data were collected at a large, four-year, public, research university in the Southeast using the Student Development Task and Lifestyle Assessment. The population considered for this study consisted of first-year, traditionally-aged students living on campus within university housing at the research site for the spring of 2010. The study only considered students within three residential living environments: (a) modified-traditional residence halls, (b) adjoining suite style residence halls, and (c) super-suite style residence halls.

Multivariate analysis of covariance and analysis of covariance were conducted, controlling for race, gender, athletic involvement, extracurricular involvement, and employment. The study found no significant main effect of housing on psychosocial development of first-year students when other variables such as race, gender, athletic involvement, extracurricular involvement, and employment were taken into consideration. The study did identify a significant difference between residential environments for first year students. Race and extracurricular involvement were found to impact the students' psychosocial development. According to the findings, modified traditional construction type was discovered to significantly impact the psychosocial development of first-year students more than super-suite and adjoined suite construction types.

Recommendations for practice, theory, and research were discussed based on the results of the study. This study narrowed previous research, accounted for a variety of

control variables, and utilized recently designed construction types to add to future conceptual frameworks and models of the impact of university housing construction type on psychosocial development.

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CHAPTER ONE

INTRODUCTION

Nature of the Study

Since the beginning of American higher education with the founding of Harvard in 1636, student housing has existed to meet the residential needs of the student body (Frederiksen, 1993). During the colonial period, early colleges were mostly residential institutions. Administrators decided to house students together in a residential dormitory with the goal of fostering a common social, moral, and intellectual life for all students (Lucas, 1994). These colonial housing systems allowed the students to be close to the classroom and allowed the faculty and administration of the university to mold these young students into proper, well-mannered adults (Frederiksen, 1993).

After the Civil War, college administrators decided to focus their resources only towards academic endeavors and not towards those endeavors outside of the classroom. This change in resource allocation created an inadequate amount of on-campus living opportunities and a decline in the quality of previously constructed dormitories (Cowley, 1934; Frederiksen, 1993). Supported by the federal government, higher education saw rapid expansion to student housing after both the Great Depression and World War II (Frederiksen, 1993). To meet the housing needs of the rapid influx of veterans entering college due to the G.I. Bill, Title IV of the Housing Act of 1950 was established (Frederiksen, 1993). Quantity of students per residence hall was valued due to limited resources. The quality of the educational and residential experience was less important

(Frederiksen, 1993). This perspective changed with the explosion of student psychosocial developmental theories in the 1970s (Henry, 2003).

Over the past fifty years, psychosocial developmental theories have attempted to describe the growth of college students and the dimensions of how this growth occurs. Theorists described development as the change in individuals thinking, values, and behavior (Pascarella & Terenzini, 1991). Theorists such as Erikson (1959, 1963, 1968), Marcia (1966), and Chickering (1969, 1993) described the process of psychosocial development as sequential, orderly, and hierarchical, passing through ever-higher stages of development. Chickering's (1969, 1993) model described identity development of traditionally-aged, college students through seven vectors. These changes in development may be attributed to "biological and psychological maturation, to individual experiences and the environment, or to the interaction of individual and environment" (Pascarella & Terenzini, 1991, p. 18).Chickering also hypothesized about the relationship between the students' college environment and psychosocial development. Since the initial publication of this model, student affairs practitioners have attempted to apply this theory within environments and incorporate this model throughout their interactions with students.

The interaction between the college student and the campus environment is known as campus ecology (Strange & Banning, 2001). Kaiser (1975) defined campus ecology as "the study of campus-student transactions - how do students affect campus spaces and how are they affected by them" (p.27). The concept of campus ecology builds on Lewin's (1936) foundation equation (Banning & Bryner, 2003). Lewin (1936)

described this interdependence within his ecological equation of behavior. His equation [B=f (P*E)] stated that behavior (B) is a function of both the person (P) and the environment (E). This formula suggests that the environment and the individual both need to be analyzed to understand the behavior of the individual. Strange and Banning (2001) described this relationship between the individual in the environment as the human aggregate model. Because the development of personal identity is a major life task associated with the college experience (Chickering & Riesser, 1993), the human aggregate model has potential to inform researchers which environmental designs better assist the development of students.

Zeller and Angelini (2003) described the different residence hall construction types built to address the needs of students of different academic class standings. The elements of the specialized residence hall concept for first-year students include: (a) double room configurations; (b) quality social spaces; (c) academic support resources; (d) quality study spaces; (e) campus resource centers; (f) interactive dining concepts; and (g) a welcoming building which reflects a sense of community and student interactions. This differs from the residence hall constructed for upper-level students. For upper-level students, the design elements that further their education include: (a) a variety of room configurations including suites and apartments; (b) private bathrooms; (c) public spaces for small group interactions; and (d) a building image that reflects a sense of maturity and independence.

In 2000, higher education saw its largest enrollment growth with the arrival of the first 100-million-person generation: "the millennial generation"(Howe & Strauss, 2000).

This increased enrollment in students forced universities to expand campus housing by constructing facilities to accommodate this population (Howe & Strauss, 2000). The construction of residence halls allowed for a greater variety of arrangement design of the rooms, common space locations, and overall design of the building. Of the university housing facilities constructed since 2001, over half were apartment style or super suite living arrangements (Balogh, Grime, & Hardy, 2005). With the increase of Millennial student enrollment, some campuses are experimenting with the placement of first-year students in the different housing environments which are traditionally constructed for upper-level students (Caplinger, Hawkins, Coleman, & Jones, 2009). The effects of these decisions on first-year psychosocial development have not yet been investigated.

Statement of the Problem

Currently higher education has seen the largest population of enrolled students in history, various housing designs have been constructed to provide on-campus housing to students. Various chief housing officers and university officials have decided to place first-year students into these newly designed student housing construction types. Some administrators may make these decisions for fiscal concerns, recruitment initiatives, or student desires. With volumes of research (Astin, 1973; Brandon, Hirt, & Cameron, 2008; Chickering & Kulper, 1971; Chickering, 1974; Cooper et al., 2007; Erwin & Love, 1989; Foubert & Grainger, 2006; Foubert et al., 2005; Greeley & Tinsey, 1988; Hunt & Rentz, 1994; Itzkowitz & Petrie, 1986; Janosik, Creamer, & Cross, 1988; Jones & Watt, 1999, 2001; Jordan-Cox, 1987; Miller, 1982; Pascarella, 1985; Pollard, Benton, & Hinz,

1983; Pope, 2000; Scott, 1975; Stonewater, 1987; Sheehan & Pearson, 1995; Sowa & Gressard, 1983; Saidla, et al., 1994; Taub & McEwen, 1991, 1992; Rodger, & Johnson, 2005; Welty, 1976) examining various areas of student development, current research does not compare the psychosocial development of first-year students in various residential designs. Without understanding which environment is better for promoting student psychosocial development, chief housing officers and university officials risk the students' full potential. Further research is needed to investigate whether or not these design differences impact the development of the first year student.

Purpose of Study

The purpose of this study is to examine the impact of university housing construction on psychosocial development of first-year students. The independent variable, the design of the residential construction type, include: (a) modified traditional rooms, (b) adjoining suites, and (c) super suites (Grimm, Balogh, & Hamon, 2003). The dependents variables for this study are the three psychosocial developmental task scores of the Student Developmental Task and Lifestyle Assessment (SDTLA).These three task scores are: (a) establishing and clarifying purpose task; (b) developing autonomy task; and (c) mature, interpersonal relationships Task. The study statistically controls for the independent variables of age, gender, Greek organizational involvement, and employment.

Significance of the Study

A study of psychosocial student development for first year students living in different construction types is important for several reasons. First, understanding which environment is better for the progression of first-year student psychosocial development can improve the likelihood of students being retained. Astin (1999) stated students' involvement is directly proportional to the students' development (p.519). He theorized the more students are invested and involved in their education; the more likely the students persist and succeed in their educational endeavors.

Second, understanding this relationship can help chief housing officers (CHOs) support decisions regarding student residential placement. If newly constructed residential environments prove better for developing first-year student psychosocial development, CHOs may consider relocating the majority of first-year students into these environments. If newly constructed residential environments are found to be less beneficial for psychosocial development of first-year students than other environments, then first-year students CHOs may consider removing them from these environments.

Third, identifying which environment is best for first-year students also has financial implications for the university. Some of these construction projects are funded by university funds, coming not through public/private partnerships. Since these environments are costly to the university, CHOs may consider not constructing new environments to meet the students' desires. Instead, the students would reside in the current environments which may be found to better progress the students' psychosocial development. These funds could be allocated to updating or renovating existing residence

hall facilities. Finally, this study contributes to research conducted on first-year student psychosocial development since prior to this study, the instrument has not been used to compare the newly constructed super-suite style residential environment with other environments.

Research Questions

The four following research questions guided this study:

1. Were there significant mean differences in psychosocial development (as measured by the combined task scores of the SDTLA: mature interpersonal relationships, purpose, and autonomy) for individuals of different housing environments, after removing the effects of gender, age, ethnicity, affiliation, involvement, and employment?
2. Were there significant mean differences in mature interpersonal relationships for individuals of different housing environments, after removing the effects of gender, age, ethnicity, affiliation, involvement, and employment?
3. Were there significant mean differences in psychosocial development purpose for individuals of different housing environments, after removing the effects of gender, age, ethnicity, affiliation, involvement, and employment?
4. Were there significant mean differences in psychosocial development autonomy for individuals of different housing environments, after removing the effects of gender, age, ethnicity, affiliation, involvement, and employment?

Definitions

The following list of definitions is provided to avoid confusion throughout this study:

1. Traditional Rooms are designed as double and/or single occupancy rooms and community bathrooms. (Includes rooms with sinks, no bath) (Grimm, et al., 2003).
2. Modified Traditional Rooms are designed as double and/or single rooms that include a private bath facility in each room (i.e. not shared with an adjoining room) (Grimm, et al., 2003).
3. Adjoining Suites are designed as adjoining double and/or single occupancy rooms connected by a bathroom. No separate living area or study (Grimm, et al., 2003).
4. Super Suites are designed as a small group of double and/or single occupancy rooms with private or shared bathrooms contained within the suite. Includes separate living area/study (Grimm, et al., 2003).
5. Apartments are designed as efficiencies, one-bedroom, or multiple bedroom apartments. Includes a full kitchen. Rented by the unit (Grimm, et al., 2003).
6. First-year student refers to a student who has less than 24 credits as defined by the research site.
7. Developmental task are an interrelated set of behaviors and attitudes that the culture specifies should be exhibited at approximately the same

chronological time of life by age cohorts in a designated context (Winston, Miller, & Cooper, 1999).

8. Psychosocial development is the integration of both physiological and psychological development (Erikson, 1968).
9. *in loco parentis* is the premise that universities should act as a surrogate parent for emerging adults who are venturing away from their family of origin for the first time (Willoughby, Carroll, Marshall, & Clark, 2009).
10. Developmental stages are "intervals of time during which an internal change, stimulated through the environment, creates an internal crisis for an individual" (White & Porterfield, 1993, p. 66)
11. Developmental crises are a turning point of increased vulnerability and heightened potential due to the convergence of biological and psychological maturation and social demands (White & Porterfield, 1993, p. 67).

Limitations and Delimitations

A number of limitations and delimitations are associated with this study. The first limitation is that results of this study are not generalizable. The data gathered in this study were collected at one institution. This prevents others from generalizing the results and applying them to a different campuses without replication of the study. This limitation is the result of the delimitation to prevent additional amounts of variance associated with differences between institutions.

Only first year, traditional-aged, students were selected to participate in this study. This delimitation was made to prevent students from having developed more than other students due to more education and greater levels of maturation that is accompanied by age and life experiences.

The second limitation associated with this study was the restriction of the research site to utilize all of the first-year students residing in the three construction types due to percentage of students participating in living/learning programs. This limitation prevented comparisons between living/learning and non living learning students. The limitation also reduced the number of students living in super-suite residence halls allowed to participate in this research project.

The final limitation associated with this study was due to the design of the instrument. The SDTLA instrument selected for this study is a self-reported instrument. The results are limited to the extent that the individual responds in an honest and accurate manner. The instrument does include a scale to determine if there is a biasness associated with an individual's response. Individual's scores that are identified to be significantly higher than the national data are removed from the data set.

Composite Conceptual Framework

Conceptually, this study combined the theoretical framework of Chickering (1969, 1993), with Strange and Banning's (2001), to answer the research questions. Chickering's (1969) theory of identity development asserts that students develop their emotional, social, and intellectual identity within a college environment. He identified

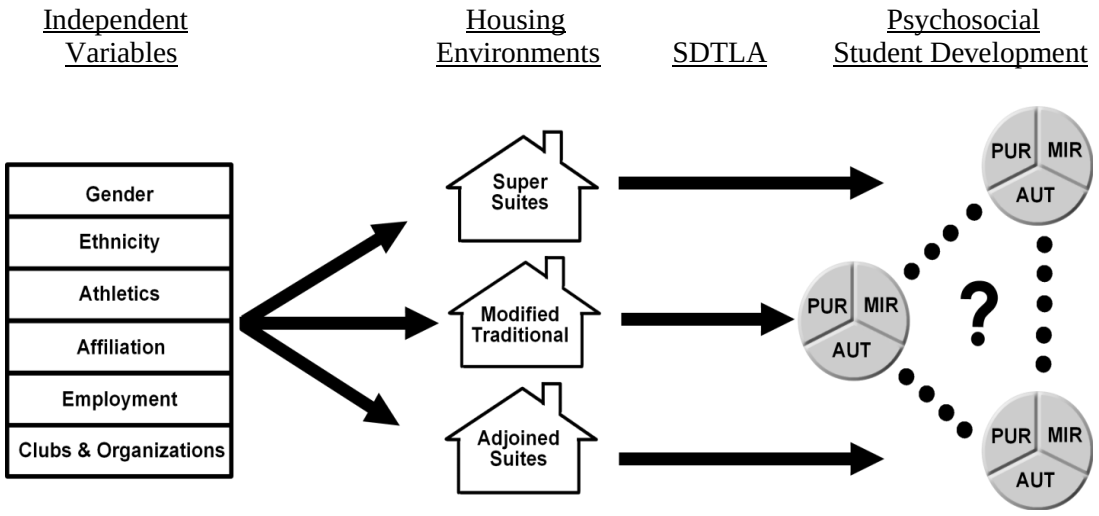
seven developmental tasks (vectors) which provided greater specificity to the concept of establishing identity throughout the entire college experience.

This study asserts that the campus environment has an impact on the behavior of individuals within the environment. The campus physical environments serve as a behavior setting for both social and physical interactions through the human aggregate model (Strange & Banning, 2001). Therefore, an investigation into the relationship between various student housing designs and psychosocial development is necessary.

As research investigated psychosocial development, various elements were shown to have an effect of student development: gender comparisons (Cooper et al., 2007; Greeley & Tinsey, 1988; Foubert et al., 2005; Jordan-Cox, 1987; Jones & Watt , 1999, 2001; Pollard et al., 1983; Stonewater, 1987), ethnic/racial differences (Cooper et al., 2007; Itzkowitz & Petrie, 1986; Pope, 2000;Sheehan & Pearson, 1995; Taub & McEwen, 1991, 1992), and extracurricular involvement: athletic involvement (Sowa & Gressard, 1983; Saidla, et al., 1994), Greek affiliation (Hunt & Rentz, 1994), organizations and club involvement (Cooper et al., 1994; Foubert & Grainger, 2006), and student employment (Furr & Elling, 2000) . The incorporation of these independent variables is essential to identifying the true variance attributed to student housing. A concept map has been created to assist the reader in understanding the conceptual framework for the study (see Figure 1).

Figure 1.1

Conceptual Framework for a Comparison of Psychosocial Student Development in Various On-campus Student Housing Designs for Traditional-aged First-year Students



The conceptual framework describes the possible relationship between the psychosocial student development as measured by the SDTLA (PUR, MIR, AUT) for each of the three measured environments. Each independent variable listed describes a characteristic of the students within the sample. Each of the three housing environments (super suites, modified traditional, and adjoined suites) are represented above by the image of a house. The grey pie chart circles correspond to the psychosocial development of the students living in each of the three housing environments. This circle is divided in thirds, each representing one of the three measured tasks of the SDTLA (PUR-Establishing and Clarifying Purpose; AUT- Developing Autonomy; MIR-Establishing

Mature Interpersonal Relationships). The black arrow in between the housing environments and the psychosocial student development represents the instrument (SDTLA).

It is important to understand that the purpose of this study was to answer the research questions, not to test the validity of this conceptual framework. The framework served as a visual guide to describe the investigation and to assist the reader in clearly understanding the relationship between the housing environments, independent and dependent variables presented.

Chapter Summary

This chapter introduced the problem of first-year students living within newly designed residence halls with no data which identifies the affect on their psychosocial student development. Research questions were identified and a conceptual framework was provided to describe the relationship between psychosocial development and the three residential environments. Finally, this chapter identified the significance of the study for chief housing officers, students, university administrators, and the theoretical research. Chapter two frames the frames the discussion by providing an evolution of student housing and by reviewing literature on the psychosocial student development. Chapter three provides the reader with an explanation of the methodology used to answer each of the research questions. Chapter four presents the findings of the study and Chapter five draws conclusions regarding the findings of the study. This chapter also provides recommendations for future study and practice.

CHAPTER TWO

REVIEW OF LITERATURE

Introduction

A substantial body of literature exists on attempting to identify the "dimensions and structure of growth in college students and to explain the dynamics by which this growth occurs" (Pascarella & Terenzini, 1991, p.18). This growth has been clustered into four developmental areas: (a) psychosocial (Chickering, 1969; Chickering & Reisser, 1993; Erikson, 1956, 1959, 1968; Marcia, 1966) (b) cognitive-structural (Gilligan, 1977; Kohlberg, 1969; Perry, 1970, 1981; Piaget, 1964) (c) (Heath, 1964; Kolb, 1976; Myers & Myers, 1980; Witkin, 1962) and (d) person-environment interaction models (Astin, 1968; Barker, 1968; Holland, 1966; Moos, 1976, 1979; Pace, 1984; Pervin, 1967; Strange & King, 1990; Stern, 1970; Wicker, 1979). Much literature focuses on students' cognitive development with fewer studies conducted on their psychosocial development (Pascarella & Terenzini, 1991). Understanding how students develop through college as a consequence of various age, socio-cultural, and environmental influences is vital to understanding the student as a whole (Pascarella & Terenzini, 1991).

Studies (Astin, 1973; Chickering, 1974; Miller, 1982; Pascarella, 1985; Scott, 1975; Welty, 1976) have identified specific benefits to living on campus but none of these compared different on-campus living environments. Limited research investigated the environmental factors and psychosocial development (Astin, 1973; Brandon, Hirt, & Cameron, 2008; Chickering, 1974; Erwin & Love, 1989; Janosik, Creamer, & Cross,

1988; Miller, 1982; Pascarella, 1985; Rodger, Johnson, & Wakabayashi, 2005; Scott, 1975; Welty, 1976).

The literature has also adequately affirmed the idea that student housing and on-campus living has a positive impact on student development (Astin, 1973; Brandon, Hirt, & Cameron, 2008; Chickering, 1974; Erwin & Love, 1989; Janosik, Creamer, & Cross, 1988; Miller, 1982; Pascarella, 1985; Rodger, Johnson, & Wakabayashi, 2005; Scott, 1975; Welty, 1976). Living on-campus has been identified to increase personal autonomy and independence, and mature interpersonal relationships (Pascarella & Terenzini, 1991). Despite the identified significance living on-campus has on the student versus living off-campus, research (Astin, 1973; Chickering, 1974; Miller, 1982; Scott, 1975; Welty, 1976) has not been conducted to identify the effect various on-campus housing environments have on psychosocial development.

Pascarella and Terenzini (1991) described the benefits attributed to housing as indirect. The researchers attributed the difference in development to increased availability of interactions between students and their peers and faculty members due to the students living on campus. This conclusion indicates the importance of accounting for multiple independent variables which attribute to significant differences in psychosocial development.

The purpose of this chapter is to frame the research questions of the study through literature. In building a conceptual framework, the chapter begins with a historic summary of the evolution of student housing. In addition, a review of historical literature which serves as the foundation of psychosocial development is discussed. Current and

historical literature addressing psychosocial development and gender, race/ethnicity, athletic participation, Greek-letter affiliation, club and organizational participation, employment, and student housing is summarized. Finally, the operational theoretical framework for this study is discussed.

History of Student Housing

The history of American university housing has illustrated how housing has evolved over the years and has provided an important perspective for understanding each of the current housing environments. From meager rooms near campus which provided shelter (Rudolph, 1990) to various complex structures with a multitude of amenities, buildings evolved to meet the growing needs and demands of collegiate students (Henry, 2003).

Historically, the development of American student housing can be structured into three separate phases (Frederiksen, 1993). The first period began with the foundation of Harvard in 1636 and lasted until the 1861, the beginning of the Civil War (Frederiksen, 1993). This phase was influenced by the practices of universities located in England (Rudolph, 1990). The second period of American student housing lasted from the 1862 until the early 1900s (Frederiksen, 1993). This period saw the largest decline of student housing in American history due it the influence from educational model practiced in Germany (Veysey, 1965). After the 1900s, expansion of student housing defined the third stage of American student housing. The following literature review describes and elaborates on each of the three stages of American student housing: (a) the influence of

both the English models of education; (b) the influence of the German model of education; (c) the influence of the federal government on the expansion of student housing across the country. The literature review on the history of student housing concludes by describing construction types which have evolved since the 1960s. These construction types are the current residential designs which exist on college campuses today (Henry, 2003).

Student Housing Prior to America

Education has existed since the time of the Greeks and Romans but not conducted within a classroom or in the form of a permanent institution of learning (Haskins, 1965). It was not until twelfth century in Paris and Bologna that the first form of organized education emerged with the construction of the first campus (Haskins, 1965) and the emergence of the first forms of student housing (Lucas, 1994). Hospices were housed by students and supervised by university officials (Lucas, 1994). The residents of these first student housing environments lived up to five students per room. Benefits of these living environments included protection afforded by controlled rents and the ability to share the cost of food (Lucas, 1994). The concept of student housing spread to institutions in England institutions, such as Oxford (Lucas, 1994). Providing student housing near campus allowed education to expand outside of the classroom and into the personal lives of each student (Rudolph, 1990). This model came to be known as the English model for education (Cremin, 1989).

Evolution of American Student Housing

Influence of the English Model

Student Housing has existed since the beginning of American higher education with the foundation of Harvard in 1636 (Frederiksen, 1993). Harvard was patterned after Oxford and Cambridge because many of the leading citizens of early New England were alumni (Frederiksen, 1993). The English model stressed the students' residence as a location of both the formal and informal center for education (Rudolph, 1990; Frederiksen, 1993).

The colleges established during the colonial period were founded with the intent to serve the students of students from within the community (Leonard, 1956). As time passed, more students from outside the community were admitted into the colleges. These colonial students typically traveled long distances due to the scarcity of college in America (Cowley, 1934). The small communities in which universities were located did not contain an adequate supply of rooming houses to meet the needs of the students. The lack of housing forced Colonial colleges to construct dormitories (Leonard, 1956).

Leonard (1956) described the early dormitories as inadequate and meager at best. Dormitories were usually crude log houses or brick buildings. Two to three students were usually assigned to each room (Leonard, 1956) crowding the already small dormitory rooms (Rudolph, 1990). Unlike in today's residence hall, the dormitories of the colonial period die not provide amenities such as furniture, bedding, or candles (Leonard, 1956).

The Colonial student population was considerably younger than today's traditional student (Rudolph, 1990). Due to the age of the student and the distance

between the student and their parents, administrators assumed the role of parent, teacher, and disciplinarian no matter if the students lived on or off campus (Veysey, 1965). This approach to teaching became known as "*in loco parentis*" meaning in place of the parent (Willoughby, et al., 2009). The housing system allowed the students to be close to the classroom and allowed the faculty and administration of the university to mold these young students into proper, well-mannered adults. This English model continued to influence the functions of American universities until the time of the Civil War (Frederiksen, 1993; Veysey, 1965).

Influence of the German Model

The second phase of American Student Housing history occurred during the nineteenth century. Following the Civil War, many Americans went to Germany to further develop their education. German education focused on research (pure science) and not the students' development (Veysey, 1965). It was during the period following the Civil War that many Americans went to Germany to further develop their education. Graduates of these institutions brought this concept back to America, which resulted in a widening of the gap between the classroom and the experiences outside of the classroom (Schroeder & Mable, 1994). College presidents began to promote the German belief that the responsibility of student housing lied upon the shoulders of the students themselves and not the institution. Many presidents of colleges began to devalue the importance of student housing as their focus shifted towards research and instruction (Cowley, 1934; Rudolph, 1990)). At this time, the second half of the nineteenth century, several presidents from major American colleges denounced residence halls as a waste of

university funds and deemed any construction and upkeep as inappropriate (Frederiksen, 1993).

Due to the negative perception of college housing, very few campuses constructed residence halls (Rudolph, 1990). With the passage of the Morrill Act of 1862 (7 U.S.C. § 301), funds were provided to establish numerous institutions. Many institutions founded during this period decided to not invest money into construction of residence halls but only into academic endeavors. The lack of residential options on campus drove student into finding means of living. To meet the need for student housing, beautiful chapter houses for fraternities and sororities were build (Frederiksen, 1993).

By the turn of the century, University Presidents began to support the concept of student housing and built residential campuses for their students. Cowley (1934) stated that residence hall construction at this time was occurring at a faster pace than any previous time in the history of American higher education. Since funds were limited, many construction projects were supported through private gifts since many state institutions were more interested in allocations toward academic endeavors. The limited financial support for construction remained constant until the involvement of the federal government in the 1930s (Frederiksen, 1993).

Federal Government Support

The establishment of the Federal Emergency Administration of Public Works of 1933 was signed into order by President Franklin D. Roosevelt to reduce unemployment through construction and other public works (Frederiksen, 1993). The housing division of the Public Works Administration promoted a program for the construction of low-cost

general housing. Many institutions qualified for funding under this program expanding their student housing systems (Frederiksen, 1993). The next influence on the construction of collegiate student housing from the federal government came after World War II.

Rapid and constant growth in the nation's higher education system occurred due to the introduction of The Servicemen's Readjustment Act of 1944, better known as the GI Bill (Lucas, 1994). This act was designed to provide greater opportunities to over 16 million World War II veterans who were returning home. The bill, signed by President Roosevelt on June 22, 1944, provided federal aid to help veterans adjust to civilian life in the areas of hospitalization, purchase of homes and businesses, and most of all to provide an education. Veterans were free to attend the educational institution of their choice as long as they met the university's admissions requirements (Freeland, 1989). By 1947, 2.3 million veterans were enrolled in colleges and universities (Lucas, 1994). This growth continued for more than a decade later until around 1962 (Lucas, 1994). The G.I. Bill almost doubled the amount of post-secondary students within the first year, permanently affecting the future of higher education (Freeland, 1989). The impact of this increased enrollment created an overcrowded environment at almost all institutions (Frederiksen, 1993). Housing facilities were inadequate. New building programs were established across the country to accommodate the number of veterans entering into America's higher education system (Noble, 1960).

Frederiksen (1993) stated that the federal government predicted that an increase of college enrollment would continue throughout the 1950s and 1960s. Title IV of the Housing Act of 1950 was passed by congress to create a more permanent solution for the

collegiate housing shortage (Frederiksen, 1993). Title IV provided loans for educational institutions for making repairs and provided funds to begin new facilities construction for faculty and students.

Title IV loans provided low interest rates over many years which attracted both public and private universities (Frederiksen, 1993). Student housing construction flourished nationally during the 1950s and 1960s due to the funding provided by Title IV. Many facilities were not designed for the quality of the students' personal development or educational experience, but they were built to accommodate many students, serving as a fast solution to the housing shortage (Frederiksen, 1993).

From the 1950s through the 1970s, the new model of student housing consisted of high-rise towers of traditional hallway designs with commonly shared bathrooms and small centralized study rooms (Henry, 2003). These buildings were designed to have centralized elevators for easier access of higher floors. The majority of the buildings had anchored furniture, creating a fixed, inflexible environment. The long hallways of rooms were designed to obtain the maximum capacity for the amount of money allocated through the loan. These buildings are known today as traditional hallway designed residence halls (Henry, 2003).

Throughout the 1970s, many universities changed their policies to require students to reside on campus due to increasing debt and some housing offices inability to maximize the capacity of their residence halls (Henry, 2003). Upcraft and Pilato (1982) wrote that during this time the concept of *in loco parentis* was abandoned replacing rules and regulations with "programs, services, and activities that promoted student

development" (p.4). Some policy changes allowed students to have flexibility within their environment. Anchored furniture was replaced with movable furniture; students could paint their rooms; and some institutions remodeled older hallway designs into two-double bedroom apartment style residence halls all in an effort to meet the students' desire for flexibility, space, and privacy (Henry, 2003). These residence halls were also renovated to include bathrooms for each apartment. Many traditional residence halls built through the 1980s include bathrooms between rooms, creating the adjoined suite style room (Henry, 2003). Due to these alterations to housing policies, housing occupancy stabilized allowing housing professionals to developmental needs of their residents (Bliming & Miltenberger, 1984).

During the 1980s, a renewed focus on the undergraduate experience indentified the importance of on-campus residential experience. Universities around the country experienced an increase in students desiring to live on campus within the residence halls. With a fifty percent projected student enrollment increase throughout the 1980s, campuses did not have enough bed space for all students. Henry (2003) stated that "building dormitories was considered the primary way to cope with increased enrollment" (p.3).

Universities without the finances to build residence halls developed alternative methods for the lack of student housing. Many campuses allocated a percentage of beds for new students and developed a lottery system to accommodate a limited number of returning upper classmen (Henry, 2003). The lottery systems were strategic methods to

identify who could live in the available rooms. Other campuses established relationships with private developers to provide housing near campus (Henry, 2003).

During the 1990s, many institutions constructed smaller suite and apartment style residence halls (Henry, 2003). Suite-style rooms being constructed usually contained two double rooms, a living room, and bathrooms. Focus was placed on amenities such as air conditioning, carpeting, private bedrooms and baths, and full kitchens for apartments (Henry, 2003). Renovations to older residence halls continued as campuses attempted to provide more amenities in existing environments (Henry, 2003). During this decade, the super-suite style residential design evolved to meet the desire for students to each have a shared common space within an apartment but provide private bathrooms and bedrooms for each student (Henry, 2003). These newly constructed buildings also attempted to meet the growing need for greater incorporation of technology within the environment providing Local Area Network (LAN) outlets per room for wired computers, wireless internet, and more electronic outlets for the numerous electronic devices students possess (Henry, 2003).

Current Types of Housing

In 2000, higher education saw its largest growth in population with the arrival of the first 100-million-person generation: "the millennial generation" (Howe & Strauss, 2000). This increase in students forced universities to expand their campuses through construction to accommodate this population (Howe & Strauss, 2000). The construction of residence halls allowed a greater variety of arrangement, design of the rooms, common space locations, and overall design of the building. Of the environments constructed since

2001, over half were apartment style or super suite living arrangements (Balogh, Grime, & Hardy, 2005).

Since 2003, ACUHO-I has published construction data identifying the latest trends (Grimm, et al., 2003). Over the past seven years, apartments have been the dominant design type with over twenty percent of campuses constructing standard apartments and thirty percent constructing individual apartments (Day, Balogh, Moss, & Short, 2008; Day, Thomson, & Balogh, 2006; Grimm, et al., 2003; Grimm, Balogh, Thomson, & Hardy, 2004). Individual apartments differ from standard apartments by renting each bed space individually (Day, et al., 2008; Day, et al., 2006; Grimm, et al., 2003; Grimm, et al., 2004). Over twenty percent of campuses are also constructing super-suites and sixteen percent are constructing adjoined suites (Day, et al., 2008; Day, et al., 2006; Grimm, et al., 2003; Grimm, et al., 2004). Fewer campuses are constructing traditional (seven percent) or modified traditional designs (eleven percent) (Day, et al., 2008; Day, et al., 2006; Grimm, et al., 2003; Grimm, et al., 2004). The modified traditional design provides private bathrooms per bedroom versus sharing a bathroom with the rest of the hallway. Only eight percent of campuses are constructing other residential designs (Day, et al., 2008; Day, et al., 2006; Grimm, et al., 2003; Grimm, et al., 2004).

Philosophies of Housing

According to McClellan, Cawthon, and Tice (2001) there have been four distinct philosophies which have influenced the practice of student affairs: (a) student control; (b) student services; (c) student development, and (d) student learning. Each of the four

philosophies was prominent during different time periods while elements of each philosophy existed throughout the history of housing in American higher education.

During the age of *in loco parentis*, student control influenced the practices of student affairs (McClellan, Cawthon, & Tice, 2001). Due to the age of the student and distance from their parents, student affairs professionals were obligated to make decisions for the students. The philosophy of student control guided policies, procedures, decisions and the design of early housing designs. McClellan, Cawthon, & Tice (2001) stated, "Early dormitories were constructed in ways that allowed for faculty, and later staff, to exercise control and supervision over students".

Many nontraditional students entered college with the rapid expansion of higher education after World War II due to the GI Bill. Previous practices of *in loco parentis* were not applicable to this different student population. During this time the dormitories evolved into providing services to students in a less restrictive environment. This period saw the beginning of amenities such as convenience stores, televisions, and social programs within university housing. These practices became known as and the student services and served as the main philosophy in student affairs until the late 1960s.

Throughout the 1970s and 1980s, student affairs practitioners were guided by the expansion of student developmental research. Student affairs practitioners focused on the growth of students in areas of psychosocial, cognitive, career, and spiritual development. student developmental research provided justification for the student affairs greater than merely providing services.

Following the publication of Student Learning Imperative (American College Personnel Association, 1994), the 1990s were influenced by the philosophy of student learning. Many housing professionals believed the goal of student housing had diverged away from the university's academic mission. This philosophy saw the emergence of learning communities as well as an increase in classrooms, computer laboratories, and faculty within the residence halls.

Summary of the History of Student Housing

This review of the student housing reviewed how residential environments have changed historically. This evolution reflects that housing structures have been designed to meet the needs and desires of the students throughout the ages. Currently, campuses are building various designs to meet the needs of their students. According to Strange and Banning (2001), these changes intended to cultivate student development and learning while providing student satisfaction and indirectly increasing student retention. To understand this evolution of student housing, one must also understand the parallel evolution of psychosocial student development.

Foundational Theories of Psychosocial Student Development

Psychosocial development has evolved from the fundamental work of Erikson (1963). Psychosocial theories suggest that "individuals develop through a sequence of stages that define the life cycle"(White & Porterfield, 1993, p. 66). Each stage involves formation of new ideas, actions, or skills due to "the convergence of social expectations

and physiological maturation" and are cumulative, containing elements of previous stages (White & Porterfield, 1993, p. 66).

Each stage contains developmental crises that must be faced. Developmental crises are turning points of increased vulnerability and heightened potential due to the convergence of biological and psychological maturation and social demands (White & Porterfield, 1993). Each stage also contains developmental tasks that have to be achieved. Developmental tasks are "crucial, problematic issues that must be resolved during individual stages of development" (White & Porterfield, 1993, p. 67). These developmental tasks arise at specific turning points of one's life must be resolved or achieved to resolve later developmental tasks (White & Porterfield, 1993).

During the late 1960s, emerged Chickering's (1969) groundbreaking model of student development. This model described the development of students through seven vectors (stages). Chickering also hypothesized the relationship between the college environment and the psychosocial development of students. According to Chickering and Reisser (1993), psychosocial theories attempt to describe the growth or change related to how students view "themselves and the world but also in how they felt, behaved, and interpreted the meaning of experience" (p.21). This review of the literature explains the theoretical foundation for Chickering and Reisser's (1993) theory of identity development; development of Erikson's (1963, 1968) psychosocial theory of development*;* and Marcia's (1966) model of ego identity status**.**

Psychosocial Development Theories

Erikson's psychosocial theory of development. Similar to Freud, Erikson believed that the individual's personality develops in stages (Erikson, 1968). Erikson's (1963, 1968) theory described psychosocial development as the integration of both physiological and psychological development. At particular times in life, different issues become increasingly important and require action. Erikson separated these tasks into stages of development based on merging of cognitive growth and physical maturation. The eight developmental stages of Erikson's theory are (a) trust versus mistrust, (b) autonomy versus shame and doubt, (c) initiative versus guilt, (d) industry versus inferiority, (e) identity versus role confusion, (f) intimacy versus isolation, (g) generativity versus stagnation, and (h) integrity versus despair (Erikson, 1968).

The first stage occurs before the age of one. As infants, the first challenge is to determine if the world is trustworthy and to establish a relationship with a caretaker. If the needs of the child are met, they gain a basic sense of trust. The second stage focuses on children developing a greater sense of personal control and occurs from the age of two to three. The child experiences autonomy with such abilities to move and explore the world. The third stage occurs during preschool years from the age of four to five. During this stage, children learn to play with others and to lead as well as to follow. Those who fail to acquire these skills are left with a sense of self-doubt, guilt and lack of initiative. During elementary school years, from the age of six to twelve, parental encouragement as well as social interaction can develop a sense of pride in their abilities and accomplishments. The sense of competence is gained as the individual progresses

through the stage. Those who receive little or no encouragement from parents, teachers, or peers doubt their ability to be successful (Erikson, 1968).

From thirteen to nineteen, during middle school and high school years, children explore their independence and develop their sense of self. Throughout the individual's college years, students continue to define ones personal identity. This stage culminates with a gained understanding of one's identity. As an early adult, 20-24 years of age, the individual begins to explore personal relationships through intimacy. Those who are successful at this step develop relationships instead of remaining isolated (Erikson, 1968). Chickering further developed these two stages when creating his theory of identity development (Chickering & Reisser, 1993).

As an adult, the individual focuses on their career and family. During this stage, the individual is typically between the age of 25 and 64. Successfully completing stage seven provides a sense of worth and value at home and in their community. The final stage occurs near the end of one's life beyond the age of 64. As the individual looks back upon their life, they either are proud of their accomplishments or have a sense of despair. When conquering this crisis, individuals attain wisdom and acceptance, even when confronting death (Erikson, 1968).

Each stage is characterized by a crisis that can lead to progression, regression, standstill, or reoccurrence of the issue. At the culmination of a stage, the resolution of the particular crisis results in a new ego strength or "virtue" and continues to the next sequential stage. Without complete resolution of the earlier stage's crisis, the individual's ability to cope in the later stages becomes difficult (Chickering & Reisser, 1993).

Marcia's model of ego identity status. Building on Erikson's (1956, 1963) psychosocial theory of development, Marcia's (1966) model of ego identity status refines and expands the identity crisis defined by Erikson. Marcia proposed that the adolescence identity stage consisted of neither identity resolution nor identity confusion, but rather it consisted of the exploration and commitment to one's identity. Marcia described four identity states. These states are not stages but processes that adolescents go though in no particular sequence. All adolescents at some point occupy each of these identity states. The four states are: (a) diffusion, (b) foreclosure, (c) moratorium, and (d) achievement (Marcia, 1966).

Identity Diffusion is the status in which adolescents do not have a sense of their identity and have not yet made a commitment nor reflected on their identity. *Identity Foreclosure* is the status in which adolescents seem willing to commit to an identity and values of others without exploring other options. *Identity Moratorium* is the status in which adolescents are currently exploring their identity, but they have yet to make a commitment. *Identity Achievement* is the status in which adolescents have experienced an identity crisis and have made a commitment to a sense of identity of their own choice (Marcia, 1966).

Chickering's Theory of Identity Development.

Chickering expanded upon Erikson's (1959) concepts of identity as the central developmental issue in the college years. According to Pascarella and Terenzini (1991), Chickering's (1969, 1993) theory of psychosocial development has probably had the greatest influence on the study and implementation of college student development.

Chickering's (1969, 1993) seven vectors are the theoretical framework which describes how an individual develops their emotional, social, and intellectual identity within a college environment. Chickering's model (1969) of psychosocial development identified seven psychosocial tasks ("vectors") of the college years: (a) developing competence; (b) managing emotions; (c) autonomy; (d) establishing identity; (e) developing freeing interpersonal relationships, (f) developing a purpose, and (g) developing integrity. In this model, the overarching goal is to develop the identity of the "traditional-age" college student.

Over twenty years later, Chickering and Reisser (1993) revisited his theoretical foundation by altering the order of vectors to account for the difference in psychosocial development between men and women (Chickering & Reisser, 1993). The revised model shifted developing mature interpersonal relationships earlier due to the age shift of the population attending college. The following sections describe the seven vectors of Chickering and Reisser's (1993) model for psychosocial development. These are: (a) developing competence, (b) managing emotions, (c) moving through autonomy toward interdependence, (d) developing mature interpersonal relationships, (e) establishing identity, (f) developing purpose, and (g) developing integrity.

Developing competence. To develop competence, students resolve three different developmental tasks: (a) intellectual competence, (b) physical and manual skills, and (c) interpersonal competence. Intellectual competence involves the attaining of knowledge and skills for a particular field or subject matter; an expansion of cultural, intellectual, and aesthetic interest, and the development of cognitive skills, such as critical thinking

and reasoning ability. Physical and manual competence is obtained through the involvement in intercollegiate and intramural athletics, artistic, and other extracurricular activities. Learning to manage aggression and anxiety, increased awareness of emotions, and increased self-esteem are some of the benefits of such activities. Interpersonal competence is the skill to communicate and work together with others. The development of interpersonal competence is a "prerequisite for building successful friendships and intimate relationships" (Chickering & Reisser, 1993, p. 77).

As the three types of competence are achieved, an overall sense of competence is gained. This sense of competence is subjective being that it depends on how the student feels them about their accomplishments and their ability to cope with problems. According to Chickering and Reisser (1993), "increasing competence leads to increasing readiness to take risks, to try new things, and to take one's place among peers as someone not perfect, but respectable as a work in progress" (p. 82).

Managing emotions. Students begin their college career with a variety of emotions. Many of these students struggle with the ability to properly respond and manage these emotions. Excessive emotions such as fear, anxiety, anger, depression and desire have the ability to disrupt a student's education. Multiple developmental tasks must be resolved throughout this vector. Students must first become more aware of feelings and then learn ways to control, express, and integrate them in their daily lives. The student then must be able to identify the level of intensity of the feelings and understand whether or not they are positive or negative. "Developing balance, control, and appropriate expressions involves practicing new skills, learning coping techniques,

directing feelings toward constructive actions, becoming more flexible and spontaneous, and seeking out rewarding and meaningful experiences" (Chickering & Reisser, 1993, p.88). Development proceeds when students discover appropriate methods of handling and releasing these emotions (Chickering & Reisser, 1993).

Moving through autonomy toward interdependence. During this vector students develop the ability to function independently becoming more self-sufficient. Relationships are reformed with parents and elders establishing new relationships founded on equality and reciprocity. According to Chickering and Reisser (1993), students must resolve three tasks as they move through autonomy towards interdependence: (a) emotional independence, (b) instrumental independence, and (c) interdependence.

Emotional independence is the freedom from the need of approval, reassurance, and affection from others. This begins with the student's separation from their parents. Students can achieve emotional independence by relying less on established support networks (such as parents) for making decision and relying more upon themselves. The college environment traditionally provides a safe environment for students to test their decision making skills which allows the student to become more self-reliant.

Instrumental independence is the combination of two components: (a) is the ability problem solve on your own while being self-sufficient and (b) the ability to function in new places. Developing instrumental independence allows the student to have the confidence to pursue desires and opportunities and use additional resources and

information to achieve personal needs and desires. Instrumental independence can be achieved

To achieve the third developmental task, interdependence, students must first establish their emotional and instrumental independence. Interdependence is the awareness of "one's place in and commitment to the welfare of the larger community" (Chickering and Reisser, 1993, p. 117). The college environment allows the student to see their place within the community, "that they cannot receive benefits from a social structure without contributing to it, and that they cannot dire roughshod over others without facing a judicial process" (p.142). College experiences may also provide a capstone to connect various perspectives each student has about the world around them.

Developing mature interpersonal relationships. The development of mature interpersonal relationships involves (a) the increased acceptance and tolerance of differences between individuals and (b) the capacity for intimacy. Both of these tasks require individuals to "accept others for who they are, to appreciate and respect differences, and to empathize" (p.146). Tolerance can be focused into two different contexts, both intercultural and interpersonal. To achieve a sense of tolerance, a student's ignorance cannot cloud their judgment when viewing others. If clouded, the student may jump to negative conclusions regarding other individual's behavior.

The capacity for intimacy is also important in developing mature interpersonal relationships. Students develop intimacy when a relationship is valued, when both members can be honest to who they are, and "when love and loyalty all for growth and experimentation" (p.161). After each member of the relationship is able to meet these

requirements, a mature interpersonal relationship can be developed. The development of a mature interpersonal relationship occurs when one has the" ability to chose healthy relationships and make lasting commitments based on honesty, responsiveness, and unconditional regard" (Chickering & Reisser, 1993, p.48).

Establishing identity. Identity formation is an accumulation and integration of the previous vectors of competence, emotional maturity, autonomy, and mature relationships. The concept is as the individual gradually develops the previous vectors, they are able to incorporate them into their daily lives. This incorporation serves as a foundation for their self perception. Identity development involves gaining a (a) comfort with your appearance; (b) comfort with your gender and sexual orientation; (c) sense of self in a social, historical, and cultural context; (d) clarification of self-concept through roles and life-styles; (e) sense of self in response to feedback from valued others; (f) self-acceptance and self esteem; and (g) personal stability and integration (Chickering & Reisser, 1993, p. 181).

Developing purpose. Developing purpose entails an increasing ability to identify, clarify, and reach toward goals with persistence. These goals can be vocational, personal interest, or interpersonal and family commitments. Students discover vocational goals by identifying what interests them and what they love. These vocational goals can be ether for a specific career or for a broader calling. Personal interests are "avocational and recreational" and provide satisfaction and stimulation (Chickering & Reisser, 1993, p.225). Avocational and recreational interests are interests such as dating, hiking, reading, building furniture, or other activities that are not related to employment. At some point

usually near the end of college students have to determine their path for their future and if it includes marriage and a family. These decisions are referred to as interpersonal and family commitments. As the individual moves through this vector, the individual increases their ability to unify the various goals into a larger, more meaningful goal or purpose (Chickering & Reisser, 1993).

Developing integrity. Integrity involves three sequential but overlapping stages: (a) humanizing values, (b) personalizing values, and (c) developing congruence. Humanizing values describes an uncompromising individual developing to understand others by finding a median ground through analysis and understanding. A student can go through college treating everything as an intellectual exercise and not examine their values. Prejudice or ignorant views could remain unchanged if the student chooses to not interact with others or hear their opinions. As a student develops humanizing values they will have greater social, racial, ethnic, and political tolerance. To personalize their values, the student will have to identify and affirm their perception of a situation while simultaneously valuing others perceptions. When the individual matches their personal beliefs and values with behavior which is socially responsible, they have developed congruence.

Summary of Psychosocial Development Theories

The three theoretical foundation discussed in this literature review describe psychosocial development as stages which one has to achieve n order to further develop. Erikson (1959) described eight stages individual's experience over their lifetime. These eight stages are: (a) trust versus mistrust; (b) autonomy versus shame and doubt; (c)

initiative versus guilt; (d) industry versus inferiority; (e) identity versus role confusion; (f) intimacy versus isolation; (g) generativity versus stagnation; and (h) integrity versus despair (Chickering & Reisser, 1993). Erikson's theory was modified by Marcia (1966) who expanded the concept of "identity crisis". Marcia describes the crisis as four distinct non-sequential identity states: (a) Identity Diffusion; (b) Identity Foreclosure; (c) Identity Moratorium; and (d) Identity Achievement.

Chickering (1969) expanded on his predecessors work by focusing the identity development of traditional-aged college students. His model consisted of seven vectors. These vectors are: (a) developing competence; (b) managing emotions; (c) autonomy; (d) establishing identity; (e) freeing interpersonal relationships; (f) developing a purpose; and (g) developing integrity (see Table 2.1). Chickering and Reisser (1993) his theoretical foundation by altering the order of vectors to account for the difference in psychosocial development between men and women (Chickering & Reisser, 1993). The original model was modified by changing the "freeing interpersonal relationships" vector to "developing mature interpersonal relationships" and moving this vector to precede the development of autonomy (p.39). "Developing autonomy" was also redefined as "moving through autonomy towards interdependence" (p.40). Chickering and Reisser's (1993) modified model is used as the theoretical framework for this study on the explanation of the relationship between student housing and the psychosocial development of students.

Table 2.1

Summary of Chickering and Reiser's (1993) Vectors and Outcomes

Vector	Outcome
Developing Competence	Strong sense of competence
Managing Emotions	Ability to express and accept the full range of feelings
Moving through autonomy toward interdependence	Freedom of needs for reassurance; instrumental autonomy; and acceptance of interdependence
Develop Mature Interpersonal Relationships	Tolerance and appreciation of differences and intimate relationships
Establish Identity	Clarity of identity and comfort with physical self
Develop Purpose	Clarity of vocational plans and goals
Develop Integrity	Humanizing and personalizing values, social responsibility, and congruence

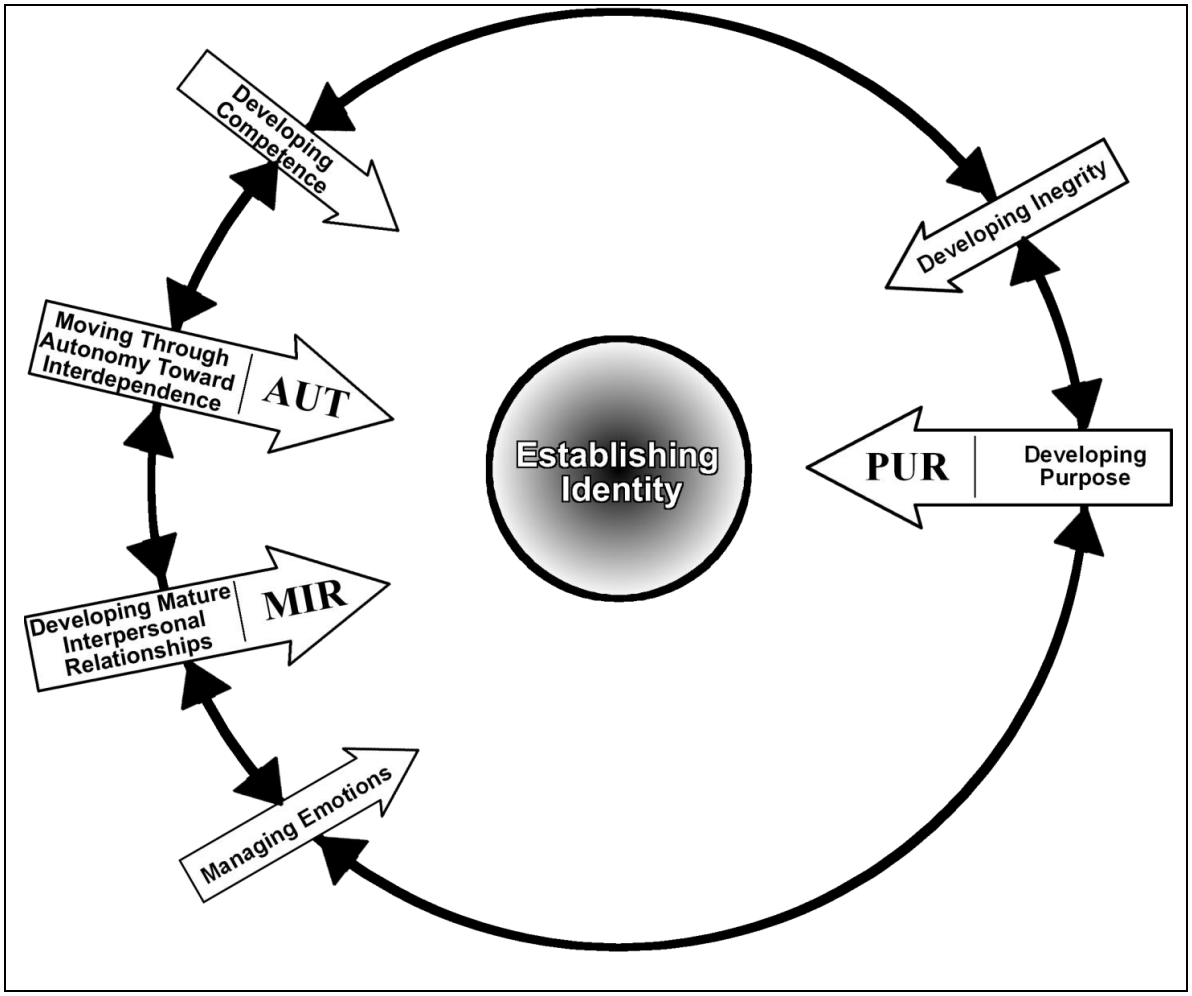
Theoretical Framework

This theoretical framework describes Chickering and Reisser's (1993) Psychosocial Student Development Model. The model is consists of seven vectors interacting with each other. This model shows how each of the six other vectors stimulates establishing identity (the seventh vector). These six vectors are: (a) developing competence; (b) managing emotions; (c) moving through autonomy toward interdependence; (d) developing mature interpersonal relationships; (e) developing purpose; and (f) developing integrity. The development along one vector stimulates

increasing maturity in others. This stimulation is represented by the solid black arrows. Three of the vectors are each measured using the Student development Task and Lifestyles Assessment and serve as the dependent variables throughout this study. These vectors are: (a) Moving through Autonomy toward interdependence, and (b) Developing Mature Interpersonal Relationships, and (c) Developing Purpose (Chickering & Reisser, 1993).

Figure 2.1

Chickering and Reisser's (1993) Model for Psychosocial Student Development



Psychosocial Developmental Research

From the foundational work of Erikson (1963, 1968), Marcia (1966), and Chickering (1969, 1993), psychosocial developmental research has expanded to investigate several areas of research. Research areas include gender comparisons, ethnic/racial differences in psychosocial developmental growth. Other research has explored student housing comparisons, and extracurricular involvement: athletic involvement, Greek affiliation, organizations and club involvement, and student employment. Gender comparisons investigated the difference between males and females. Ethnic/racial differences compared students' racial demographics including Caucasian, Black/African American, and Asian students. Athletic involvement, Greek affiliation and Organizations and Clubs involvement studies have each compared students' psychosocial development who participate with those who do not participate in the given extracurricular activity. The following literature review is organized by the psychosocial differences identified by researchers regarding each topic area. These topic areas covered in the literature review are: (a) gender comparisons; (b) ethnic/racial differences; (c) student housing comparisons; (d) athletic involvement; (e) Greek affiliation; (f) organizations and club involvement; and (g) student employment.

Gender Research in Psychosocial Development

Chickering's (1969) theory of *identity development* has served as the foundational work for the field of psychosocial developmental studies in higher education, but Chickering's original research sample consisted of mostly Caucasian males (Kezar &

Moriarty, 2000; Pascarella & Terenzini, 1991). Since the introduction of Chickering's (1969) theory, the number of females attending college has increased 16.5 percent (U.S. Department of Education, 2008). In 2007, females made up 57.2 percent of the student population attending college (U.S. Department of Education, 2008). With this shift in demographics, differences in psychosocial development by gender needs further investigation. The following section reviews the literature which identified differences in psychosocial development due to gender.

Pollard, Benton, and Hinz (1983) investigated the psychosocial development of students attending remedial and regular educational programs. The researchers conducted a two-way analysis of variance by gender and program grouping on the results of the SDTI-2 completed by first-year students *(N=119)*. The results revealed significantly higher scores on appropriate educational plans than did students participating in the developmental educational course. Significant gender differences were revealed on all three subtasks of developing mature interpersonal relationships. Females scored significantly higher than males on intimate relationships, mature relationships with peers, and tolerance. The researches contributed these differences to the social development of females and males, predicting higher scores for females than males.

In an attempt to investigate the presence of gender differences in psychosocial development, Stonewater (1987) conducted a factor analysis of the Student Developmental Task Inventory, 2nd edition (SDTI-2). Students from a large Midwestern university completed the instrument during their fall orientation. The results of the factor

analysis indicated that each of the tasks of the SDTI-2 contained overlapping items between the sexes with the strongest overlap in the purpose factor. Mature Interpersonal Relationships were moderately overlapped between men and women. If behaviors indicated no developmental difference due to gender, the items would have been clustered similarly for both sexes with no overlap. The results indicated differences exist in psychosocial development between the mature interpersonal relationships and autonomy for males and females.

Jordon-Cox (1987) investigated the psychosocial differences on the SDTLI due to gender and class level among students at traditionally black intuitions. General Linear Models in Statistical Analysis System (SAS) were used to determine if significant differences due to gender and class level existed. The results for class level supported the instruments intended design showing a growth in psychosocial development as students advance from year to year through college. Significant differences were found due to gender on both the developing autonomy task and the developing purpose task. The researchers concluded that females mastered significantly more developmental behaviors involving autonomy and interpersonal relations than males.

Differences due to gender in development of autonomy and intimacy at each college level were investigated by Greeley and Tinsley (1988). The researchers conducted a 2 (gender) x 4 (class level) ANOVA with two dependent from the SDTI-2: autonomy and intimacy. Women scored slightly higher than men on autonomy, but the main effect for sex and class level by sex interaction was not found to be significant. Women had significantly higher intimacy scores, but entered college with the higher

levels of intimacy than men. The difference between intimacy scores due to gender was maintained throughout college. This study concluded no differences existed for autonomy due to gender while there were differences in intimacy for men and women.

More recent research supported the previously noted differences in psychosocial development that is due to gender. Jones and Watt (1999) investigated moral orientation and psychosocial development of traditional-aged college students. The researchers utilized the Measure of Moral Orientation (MMO) to investigate the moral effect of students and the SDTLA to measure the psychosocial development. The results shows significant overall main effects on gender when a MANOVA was computed to test for effects of ethic of care and justice on psychosocial development. Univariate analyses indicated that women had significantly higher scores than men on tolerance. No significant multivariate effects were found for ethics of care or justice. These results supported earlier researchers who found women to possess higher levels of tolerance than men (Pollard, Benston, & Hinz, 1983).

In their follow up study, Jones and Watt (2001) examined the effect of gender on both moral orientation and psychosocial development among traditional-aged college students. Both the MMO and the SDTLA were used to measure the differences due to class standing and gender. Multiple MANCOVAs were computed to test for the effect of gender on moral orientation scores and psychosocial development. The MANCOVA for moral orientation did not indicate an overall main effect. The univariate analyses however indicated women to have significantly higher ethic of care scores than men. The results from the psychosocial development MANCOVA found an overall main effect for

gender. The univariate analyses however indicated women to have significantly higher scores related to tolerance, educational involvement, instrumental autonomy, lifestyle planning, salubrious lifestyle, and interdependence. The researchers concluded that gender may influence the psychosocial development of higher education students.

To explore the gender differences on the SDTLI, Foubert, Nixon, Sisson, and Barns (2005) conducted a four-year longitudinal study at a midsized public university in the southeast. All participants lived in residence halls their first year; one half their sophomore year; and one third their senior year. A repeated measures MANOVA was used to determine the significant of group differences. Multivariate results indicated that the students experienced significant development from year to year across all the vectors measured. A second MANOVA was conducted using gender as an independent variable which revealed differences across all variables measured. Univariate analyses showed significant gender differences on developing mature interpersonal relationships and on the tolerance task.

Cooper, Dean, and Bell (2007) examined the differences for African American students' institutional type, gender, race, and class level. The researchers found a difference between class level. Seniors and juniors scored significantly higher than freshmen and sophomore students, which supports the idea of Chickering and Reisser (1993) that student continue to develop throughout college. No significant differences were found to exist based on gender or type of institution attended for African American students. These results are contradictory to the results of previous studies.

Summary of Gender Research in Psychosocial Development

In summary, several researchers found differences in psychosocial development due to gender. The majority of studies investigating if there were differences in psychosocial development due to gender found significant on developmental tasks as measured by one version of the SDTLA (Foubert et al., 2005; Greeley & Tinsey, 1988; Jones & Watt, 1999, 2001; Jordan-Cox, 1987; Pollard, Benton, & Hinz, 1983; Stonewater, 1987). Only one study found no differences due to gender on the SDTLA (Cooper, Dean, & Bell, 2007).

Foundational psychosocial research studies provided conclusions regarding male development because most of the samples studied were men (Kezar & Moriarty, 2000). Various conclusions have been drawn regarding gender differences of psychosocial development. Many researchers (Foubert et al., 2005; Greeley & Tinsey, 1988; Jones & Watt, 1999, 2001; Jordan-Cox, 1987; Pollard, Benton, & Hinz, 1983; Stonewater, 1987) suggest that there may be a difference in the psychosocial development for men and women. Few researchers (Cooper, Dean, & Bell, 2007) have concluded that no significant gender difference exists in psychosocial development. These contradictory results may be attributed various other variables such as ethnic differences of their samples. Due to these results, other variables must be included when attempting to identify the true amount of variance attributed to gender. More research is still needed to understand the level of variance between males' and females' psychosocial development.

Ethnicity Research in Psychosocial Development

Since the introduction of psychosocial development theories, the minority student population had more than doubled (U.S. Department of Education, 2008). As minority populations have increased in higher education, additional research on psychosocial developmental and ethnicity is needed. Researchers over the years have begun to provide an understanding on how to achieve diversity. Hurtado, Milem, Clayton-Pedersen, and Allen (1999) reported that one key to enacting diversity within the learning environments is to understand the policies and programs which improve the campus climate for ethnic diversity. The following section reviews the literature which describes how psychosocial development is different for ethnicities.

In an attempt to understand the relationship between black northern students and southern students psychosocial development, Itzkowitz and Petrie (1986) indentified an ethnic difference in psychosocial development. The researchers measured psychosocial development of students *(N=234)* representing five colleges from various institutional types (public university, private college, community college) using the SDTI-2.

In relation to geographic location, the researchers found northern men scored significantly lower on developing purpose. In the same study, the researcher found significant difference due to ethnicity. Both male and female black freshmen from the north scores significantly lower than southern white students. Black males scored significantly lower on interdependence and educational plans while Black females scored significantly lower on interdependence and all three subtasks of developing mature interpersonal relationships. These researchers indentified an ethnic difference in

psychosocial development for first year students. When analyzing the data for sophomore students, no psychosocial difference existed for the regional, gender, or racial characteristics of the students. The researchers concluded that one year of college seemed to equalize these differences in psychosocial development.

In their study regarding differences in Black and White undergraduate women for psychosocial development, Taub and McEwen (1991) found contradictory result to earlier studies. Participants *(N=218)* for this study were undergraduate females enrolled at a large, public, mid-Atlantic university. In the SDTLI significant differences by race were found only for one measure of development; Intimacy (INT). White women scored significantly higher than black women. There were no differences by race or interaction effects found on mature interpersonal relationships, autonomy, or academic achievement. The authors suggested more research is needed for both gender and race factors in dealing with psychosocial student development.

In a follow up study, Taub and McEwen (1992) investigated the relationship of racial identity attitudes and psychosocial development of Black and White undergraduate women. To investigate this topic, the researchers utilized the SDTLI, the Black Racial Identity Attitude Scale (RIAS-B), and the White Racial Identity Attitude Scale (WRIAS). Pearson correlations coefficients were computed to investigate relationships between racial identity attitudes and psychosocial development. The results of the correlation analyses for black women students showed nine significant negative correlations between the RIAS-B and the SDTLI. This suggested that the psychosocial development of African American women occurs in opposite to racial identity. The correlation analyses

results for white women students found three positive and two negative significant correlations between the WRIAM and the SDTLI. This suggests that the SDTLI identifies different dimension for different races.

Sheehan and Pearson (1995) investigated the psychosocial development of Asian students. The researchers compared American freshmen *(N=63)* students to Asian international students *(N=54)* studying at a Midwest university in America. The means for all of the SDTLI tasks of Asian international students were found to be lower than the American students' tasks. Significant differences occurred between Establishing and Clarifying Purpose, Developing Mature Interpersonal Relationships, and Intimacy on the SDTLI.

Pope's (2000) research indentified an ethnic difference in psychosocial development. The researcher conducted a nationwide study to examine the relationship between psychosocial development and racial identity for Black American (Caribbean and African American), Asian, American, and Latino American traditional-aged undergraduate college students. To examine the relationship between race and psychosocial development, the researchers controlled for racial identity. After adjusting for the racial identity difference, race was found to have a significant relationship with the combined tasks of psychosocial development. The step-down analysis identified Establishing and Clarifying Purpose to best distinguish between the three racial groups. No significant differences were identified between the ethnic groups and Developing Mature Interpersonal Relationships nor Developing Academic Autonomy after controlling for differences on racial identity.

Cooper, Dean, and Bell (2007) examined the differences for African American students' institutional type, gender, race, and class level. Utilizing the Student Development Task and Lifestyle Assessment (SDTLA), the researchers identified a difference in psychosocial development attributed to race. The mean scores by race revealed significant differences between White and African American students on Cultural Participation, Instrumental Autonomy, Mature Interpersonal Relationships, and its two subtasks: Peer Relationships and Tolerance. The results of this study provide additional empirical evidence of differences in psychosocial development for various ethnicities.

Summary of Ethnicity Research in Psychosocial Development

In summary, several researchers found ethnic differences in psychosocial development (Cooper, Dean, & Bell, 2007; Itzkowitz & Petrie, 1986; Pope, 2000; Sheehan & Pearson, 1995; Taub & McEwen, 1991, 1992). These differences were found using various versions of what is known today as the SDTLA. Itzkowitz and Petrie (1986) found that white students scored significantly higher that black students on both autonomy and developing mature interpersonal relationships. Taub and McEwen (1991) were only able to identify significant ethnic differences on the intimacy subscale. White women scored significantly higher than black women.

In an attempt to control for racial identity attitudes, Taub and McEwen (1992) added the RIAS-B and WRIAS in their analysis. Different correlations were found for both black and white students. The results suggested that the SDTLI identifies different dimensions for different races. After adjusting for racial identity differences, Pope (2000)

found no significant relationship with the combined tasks of psychosocial development. After conducting a step-down analysis, Pope identified Establishing and clarifying purpose to best distinguish between Black American, Asian American, and Latino American students.

Sheehan and Pearson (1995) found a difference between the development of Asian international students studying in America and white American students. The white American students scored significantly higher on establishing and clarifying purpose, developing mature interpersonal relationships, and intimacy. In a more recent study, Cooper, Dean, and Bell (2007) used the SDTLA to identify significant differences between White students and African American Students. These differences existed in cultural participation, instrumental autonomy, mature interpersonal relationships, and its two subtasks: peer relationships and tolerance. Due to the results of these studies, one would conclude that a difference in psychosocial development exists between various ethnic groups.

Extracurricular Involvement and Psychosocial Development

The evidence of the benefits of extracurricular involvement on college campuses is plentiful (Pascarella & Terenzini, 1991), but little research has been conducted regarding the affects of extracurricular involvement on psychosocial development. Student activities were designed to complement the academic experience (Rudolph, 1990). Astin (1993) explained involvement in student activities had a positive impact on student learning and student development. The interaction with others through

extracurricular involvement influenced students' academic and personal development. The following section reviews the literature on the relationship between psychosocial development and different forms of extracurricular involvement.

Athletics Participation and Psychosocial Development

To identify the relationship between participation in varsity athletics at the collegiate level and the achievement of developmental tasks, Sowa and Gressard (1983) found a difference exists between subscales of psychosocial development in college students and athletes. Using the Student Developmental Task Inventory (SDTI), the researchers measured the achievement of developmental tasks. By conducting a two (gender) by two (athletic involvement) analysis of variance on the nine subscales of the SDTI, Sowa and Gressard found no significant difference in psychosocial development due to gender or the interactions between athletic involvement and gender. Significant differences were found between athletes and non-athletes on three subscales: (a) education plans, (b) career plans, and (c) mature relationships with peers. Athletes scored significantly lower than non-athletes on the achievement of developmental tasks. This difference may have been due to the time and personal commitment of the students' athletic participation.

Similar differences in psychosocial development between athletes and non-athletes were found by Saidla, Dare, Modica-Turner, Smith, and Staton-Mcgraw (1994). The researchers explored the relationship between aspects of student athletes' psychosocial development and perceptions of the university residence environment. The participants *(N=155)* were traditional first-year student athletes from a large southeastern

public university. The SDTI and the University Residence Environment Scale (URES) were requirements during their freshmen orientation course for the participants.

Independent sample t-tests showed few significant differences between the means of general residents and student athletes. Non-athletic residents scored higher on career planning and on cultural participation than athletes on the SDTLI. Athletes scored higher on Salubrious Lifestyle and on Peer Relationships. On the remaining subscales, there were no differences between the mean scores of the athletes and the residents. The researchers concluded that the athletes' time on the practice field and time spent with teammates may contribute to the significant difference between athletes and non-athletes. These same activities also may keep the athletes from pursing cultural scholarly activities.

Organizational and Club Participation and Psychosocial Development

Cooper, Healy, and Simpson (1994) investigated the relationship between students' involvement in organizations and leadership positions and the students' psychosocial development. This longitudinal study attempted to identify how students change because of their involvement over time. The SDTLI was administered to traditional-age first year students at a doctoral-level institution. Those students who were enrolled three years later were asked to complete the SDTLI again. The participants of both surveys *(N=256)* also completed an additional survey regarding their usage of programs and services. The independent variables of this study were membership of student organization (member/ non-member) and leadership within organizations (leadership/participant).

Multiple t-tests were used to examine the SDTLI scores from the first year. Growth and change over the three years was measured by using an analysis of covariance (ANCOVA) and the least squares means test. The results showed that first-year students who were members scored significantly higher on Developing a Purpose (PUR) and Life Management than non-members. As juniors, members of student organizations also scored higher than non-members on Educational involvement, Career Planning, Lifestyle Planning, Cultural Participation, and Academic Autonomy, in addition to the differences previously found on developing purpose and life management. After controlling for the scores of the first test, the increased scores remained significant indicating the changes were due to being a member of the student organization. Leaders of organizations also scored higher than non-leaders in both the first and third year on developing purpose, educational involvement, career planning, lifestyle planning, and life management. The results from this study describe a clear difference of psychosocial development between students who participate in student organizations from those who do not.

Foubert and Grainger (2006) investigated the extent of varying levels of involvement in student clubs and organizations coincide with the development of students throughout their college career on the three scales measured by the SDTLI. A random sample of college students *(N=307)* from a mid-sized public university in the southeast completed the SDTLI at the beginning of their first year, beginning of their second year, and at the end of their senior year. All participants lived in residence halls during their first year; about half during their sophomore year; and about one-third during

their senior year. A multivariate analysis of variance (MANOVA) was used in the study to identify the difference on multiple dependent variables.

The first MANOVA used the sophomore's level of involvement as the independent variable and the SDTLI scales as the dependent variables. The results showed a difference between all dependent variables except the subscales of developing mature interpersonal relationships. Also, there were no developmental differences between joining and leading a student organization. Thus, students who participated in clubs or organizations had higher scores than students who did not participate.

The second MANOVA used the senior's level of involvement as the independent variable and the SDTLI scales as the dependent variables. The results were statistically significant for five dependent variables: (a) career planning, (b) lifestyle management, (c) cultural participation, (d) establishing purpose, and (e) clarifying purpose. These students also had statistically significant higher levels of development in establishing and clarifying purpose, educational involvement, career planning, lifestyle management, and cultural participation than they did at the beginning of both their first-year and sophomore year. There were no developmental differences between joining and leading a student organization. This study concluded that students who participated in clubs or organizations have higher SDTLI scores than students who do not participate.

Greek Affiliation and Involvement and Psychosocial Development

Hunt and Rentz (1994) investigated the relationship between Greek-letter social group members' level of involvement and their psychosocial development using the Student Development Task and Lifestyle Inventory (SDTLI) and the Extracurricular

Involvement Inventory. Students *(N=321)* were randomly sampled from registered Greek-letter social organizations at a medium-sized, public, Midwestern university. The researchers used the SDTLI to measure psychosocial development and the Extracurricular Involvement Inventory to measure involvement in organizations. The independent variables were gender and class.

The results of this study identified a significant correlation between Greek Affiliation and purpose for junior year women and for senior men. Sophomore women had a negative correlation between Greek affiliation and intimacy while senior men had a positive correlation. When total involvement (all organized activities) and psychosocial development were compared, sophomore women again had a negative correlation to intimacy. Junior women reflected significant correlations between involvement and the three SDTLI tasks. For senior men, significant correlations existed between involvement and establishing and clarifying purpose task, developing mature interpersonal relationships, and intimacy. Finally, senior women had a significant correlation between total involvement and purpose.

Hunt and Rentz's (1994) study supported a relationship between Greek affiliation and psychosocial development as measured by the SDTLI. Greek affiliation alone or in conjunction with other campus activities was significantly related to various tasks and subtask of the SDTLI. This positive relationship between Greek involvement and psychosocial development varied by both gender and by academic class. As such, Greek affiliation must be considered when attempting to indentify the variance associated with the residential environment.

Employment Research and Psychosocial Development

While investigating the influence of work on college student development, Furr and Elling (2000), found both positive and negative effects of student employment. Using literature from the areas of environmental assessment (Boyer, 1990), student development from the SDTLI (Winston, Miller, & Prince, 1987), and campus ecology (Banning, 1980) a committee of student affairs members created a survey to identify the influence of work on student development. The survey was administered by phone randomly to students *(N=406)* from a southeastern, urban university. The independent variables for this study were class standing, place of residence (on-campus, off-campus), participation in organization, and hours of work.

The researchers found that the more students became involved with off-campus employment, the more students became less connected to the university. On-campus employment was found to have a positive effect of the involvement of the student. On-campus employment was shown to increase the amount of interactions the student had with faculty members. The study also found negative influence on academic progress for students employed over 30 hours (Furr & Elling, 2000). Since this employment can affect both the students' involvement and academic progress, it should be considered to have a possible affect on the psychosocial development of first-year students.

Summary of Extracurricular Involvement

A variety of areas of extracurricular participation has been shown to have an effect on psychosocial development. Researchers (Saidla, et al., 1994; Sowa & Gressard, 1983) identified a difference in psychosocial development between athletes and non-

athletes. Sowa and Gressard (1983) found that athletes scored significantly lower than non-athletes in regards to education plans, career plans, and mature relationships with peers. Saidla, et al. (1994) found that non-athletes scored higher on career planning and cultural participation. Athletes scored higher on Salubrious Lifestyle and on Peer relationships. Both researchers attributed the differences in scores to the requirements of athletics and involvement with their fellow athletes.

Similar to athletic participation, researchers (Cooper et al., 1994; Foubert & Grainger, 2006) found a difference in participation in organizations and clubs for psychosocial development. Students who participated in clubs and organizations were shown to have higher scores on the SDTLI. Cooper et al. (1994) found those students who participated had higher developing a purpose, career planning, lifestyle planning, cultural participation, academic autonomy, and life management. Foubert and Grainger (2006) identified career planning, lifestyle management, cultural participation, and establishing and clarifying purpose as areas of development which were higher for students who participated in clubs and organizations. The two studies showed contradicting results for students leading these clubs and organizations.

Differences in Greek affiliation and involvement were found by researchers (Hunt & Rentz, 1994). Significant correlations existed between Greek Affiliation and establishing and clarifying purpose, intimacy, and mature interpersonal relationships for senior students. Employment was found by researchers (Furr & Elling, 2000) to have both a positive and negative effect on psychosocial development of students. On-campus employment was shown to increase the amount of interactions the students has with

faculty members. Students where were involved with off-campus employment were found to be less connected to the university.

The results for these studies show a relationship between student extracurricular involvement and psychosocial development. Each of these areas of extracurricular participation has been shown to have an effect on psychosocial development thus each area of participation must be included into this study. Each of these variables may account for some variability when attempting to identify the true significance of various on-campus student housing environments.

Student Housing and Psychosocial Development

The effects living on campus has on psychosocial development has been debated. The following studies in this literature review illustrate some of these developmental effects. Multiple studies investigated the influence of residential halls by comparing students' living environments. Many of these studies focused on comparing students on and off campus (Astin, 1973; Chickering & Kulper, 1971; Chickering, 1974; Miller, 1982; Pascarella, 1985; Scott, 1975; Welty, 1976). These studies have identified specific benefits to living on campus but none of these compared different on-campus living environments. Limited research investigated the environmental factors and psychosocial development (Brandon, Hirt, & Cameron, 2008; Erwin & Love, 1989; Janosik, Creamer, & Cross, 1988; Rodger, Johnson, & Wakabayashi, 2005;).

According to the findings of Chickering and Kulper (1971), a wide variety of psychosocial differences exist between students who reside on campus and those who reside either in at an off-campus apartment or at home with their family. The study used

the Experience of College Questionnaire (ECQ) and the College and University Environment Scales (CUES) to determine differences between the commuter and residential students. Students who lived on-campus participated in extracurricular activities and had more peer relationships than students living off campus. Other results from Chickering and Kulper study identified commuter students having greater increases in measures of intellectual interests while residential classmates showed greater changes in the nonintellective areas. The results of this study indentify specific differences in the level of development between those students who reside on-campus and those who do not.

Using data collected by Cooperative Institutional Research Program of American Council on Education's longitudinal research project, Astin (1973) compared students who lived within the residence halls to those students who did not. Students *(N= 213)* were surveyed their first year (1966) and their four year (1970). The students lived within three different residential types: dormitories, at home with parents, or in private housing. A significant difference existed between those students who lived at home with parents and those who lived on campus or in private residence. Dormitory residents were less likely to leave the university than students commuting to school.

According to Astin (1973), students' attitudes, behavior, and overall satisfaction of the university were positively affected by living on-campus versus off-campus. Students perceived that living on campus has a positive effect on their interpersonal competency, self-confidence, public speaking, and political liberalism. The environment seemed to also stimulate the social aspects of live such as dating, partying, and listening

to music. Astin (1973) stated that living on-campus was provided more opportunities to interact with professors and increased the ability to receive guidance and advice from faculty and staff. This study identified on-campus residential living as having a positive effect on student's personal growth and development.

The Personal Orientation Inventory was used by Scott (1975) to assess changes in student development for students living within the residence halls versus students living off campus. Scott found that residence hall students differed from non-resdence hall students in personal development or self-actualization during the academic year. Freshmen men and women increased their ability to identify and express feelings. Male upper-class who lived on campus had increased ability to accept themselves in spite of weaknesses. Female upper-class students were more flexible in applying their own values and principles to their lives and able to develop meaningful relationships than students living off campus. This study identified the impact of on-campus living on student development for first-year and upper-class students.

Welty (1976) investigated the impact of residence halls and commuter living situations on freshmen intellectual and personal growth. Welty used the Omnibus Personality Inventory, the College Student Questionnaire, and the College Experience Inventory to determine if there was a difference between students who lived on-campus compared to students who live off-campus. On the Omnibus Personality Inventory, five of the six scales had significant differences between on-campus and off-campus students on both the pre-test and post-test.

Significant differences in the college experience were found between the two residential groups. Students participated more frequently in extracurricular activities, established new friendships, and had more student friends whom they had known previously. Significant differences were found within the intellectual disposition scale. These differences were related in part to the interaction of the living situation with the level of satisfaction with faculty and the number of new friendships established. The two groups significantly differed on thinking introversion scale, which refers to their interest in reflective thought, and academic activities. The group also significantly differed on the altruism scale, which measures the degree to which students are trusting and ethical in their relations with others. Finally the groups differed on the complexity scale, which measures students' tolerance of the unknown and openness for new ideas. Overall, this study found that on-campus residents have greater intellectual and personal growth than students who do not live on campus.

Miller (1982) investigated the developmental impact of residence hall living on college sophomores. Using the SDTI-2, Miller compared personal development of sophomores who lived on-campus for two years with those who moved off-campus after their first year. Place of residence was significant ($p<.01$) for emotional autonomy, instrumental autonomy, and tolerance subtasks. The place of residence was also significant ($p<.05$) for developing autonomy and developing purpose. Those students who had moved off-campus their second year had higher scores in emotional autonomy, instrumental autonomy, developing autonomy and developing purpose than those

students who remained living on campus. Overall, this study determined that psychosocial development significantly differs between different residential settings.

In a different approach, Pascarella (1985) investigated the influence of residential living. Pascarella used residence as one of many variables of influence on student development on a college campus. Pascarella (1985) investigated the influence of on-campus living versus commuting by determining whether indirect or direct patterns of influence on intellectual and interpersonal self-concept were measured. Pascarella used existing data collected in 1975 by the Cooperative Instruction Research program (CIRP) surveys sponsored by the American Council of Education. The sample consisted of 4,191 students from 74 universities.

To determine if indirect patterns existed, eight pre-enrollment characteristics were measured. These eight variables were: secondary school grades, gender, academic aptitude testing scores, parental educational level, degree aspirations, secondary school extracurricular involvement, academic expectations, and social expectations. The study also controlled for structural and organizational characteristics such as institutional selectivity, three variables of college experience, and residence: whether living on-campus or off-campus. The two dependent variables were intellectual and academic self-concept and social and interpersonal self-concept. The data were analyzed by use of multiple regression.

The results of Pascarella's study indicated that were no direct influence of residential status on student intellectual and interpersonal self-image. The positive influence of campus living on student development was found to be indirect. Living on-

campus was positively associated with student development by promoting higher levels of interaction and involvement with both peers and faculty (Pascarella, 1985). Overall, this study determined that even if residential status does not have a direct effect on student development but plays a central role in the impact of college by increasing student involvement.

Janosik, Creamer, and Cross (1988) studied the relationship between the students' sense of competence and student-environment fit in residence halls for first year students. The *University Residence Environment Scales* (URES) were used to assess student perceptions of the residence halls environment. These scales have the respondents to indicate their perceptions their residential environment and an ideal residential environment. A second instrument, the *Sense of Competence Scale* (SCS), was used to assess the perceived interpersonal and intellectual skills of the respondents and was based on Chickering's vector of competence. Janosik and colleagues found a higher level of competence associated with residential living due to the perception of a greater emotional support, greater involvement, and less competition. Overall, this study determined that supportive residential environments help students' development of competence.

Using the Student Development Task Inventory2 (SDTI-2), Erwin and Love (1989) investigated the relationship between a variety of environmental factors and their relationship to student development. The independent variables of this study were housing, financial aid policies, social environment, work and educational goals. Using a test-retest design, Erwin and Love indentified students living in Greek on-campus

housing had a higher level of autonomy versus students living off-campus. These findings support previous findings for the benefit of living on-campus versus off-campus.

In an attempt to measure affective, behavioral, and cognitive variables for different environments, Rodger and his colleagues (2005) used a questionnaire comprised of four sections: (a) sense of belonging, activities, (b) quality of life, and (c) omnibus personality inventory. The researchers found students who lived in suite-style residence halls reported a greater sense of belonging and a higher activity level than students who reside in traditional residence halls.

Brandon, Hirt, and Cameron (2008) investigated the relationship between student face-to-face interactions and two housing environments: traditional and suite-style residence halls. The purpose of this study was to understand how residence hall spaces that differ by architectural style (traditional versus super-suite halls) impact college student interactions. The student interactions were counted by each student using maps of the hallway and the entire building. The results of this study determined that students living in traditional halls have greater number of interactions with others than students living in super-suites. The majority of these interactions occurred in their bedroom. Residents of suite-style living buildings predominately interacted with individuals in their bedroom or within the suite's common area.

As previously discussed, Pascarella (1985) identified the direct relationship between these daily student interactions and psychosocial development. Overall, both Brandon, Hirt, and Cameron (2008) and Rodger and his colleagues (2005) studies are

significant because they indentify a difference between various residential environments and student interaction which has been shown to influence psychosocial development.

Chapter Summary

The timeline of American university housing has described the evolution of various residential designs to meet the needs of the students at the time of construction. Knowing the origin of each design provides an understanding that each of these environments is not the same. The summary of psychosocial developmental theories described how individuals develop by resolving tasks which arise throughout their life. Chickering (1969, 1993) specifically focused on the development of students during their college years.

The literature identified that student housing and on-campus living has a positive effect on student psychosocial development by increasing personal autonomy and independence, and mature interpersonal relationships (Pascarella & Terenzini, 1991). If researchers (Astin, 1993; Strange & Banning, 2001) are correct and the environment does influence developmental outcomes, various environments may affect psychosocial development differently. This literature review summarized research (Astin, 1973; Chickering & Kulper, 1971; Chickering, 1974; Miller, 1982; Scott, 1975; Welty, 1976) which indentified differences between on-campus and off-campus. Other researchers (Brandon, Hirt, & Cameron, 2008; Rodger, Johnson, & Wakabayashi, 2005) compared various on-campus housing types for elements related to the psychosocial development of college students. No study in this literature review investigated the difference between

construction types of various on-campus residential designs while using the SDTLA (or previous edition of the SDTLA) thus further exploration is needed.

The literature has also identified an impact on student development by other variables. These variables are: a) gender; b) ethnicity; c) participation in athletics; d) participation in Greek organizations, e) participation in clubs and organizations, and f) employment. To obtain a more accurate picture of the impact of various on-campus residential construction types, the impact of these variables must be taken into consideration.

The purpose of this chapter was to provide a background of academic literature that supported the exploration of a relationship between student housing environments and psychosocial development. Current and historical pieces were examined, and a significant hole in the literature was defined. These foundational pieces of literature served as the basis from which this study operated.

CHAPTER THREE

METHODOLOGY

Introduction

The purpose of this chapter is to outline the methodology chosen to empirically investigate the relationship between psychosocial development of first year students and student housing construction designs. The following discussion reintroduces the research questions outlined in Chapter One. This chapter describes the procedure used to conduct this investigation. This chapter is divided into sections describing research design, unit of analysis, variables identification, sample selection, instrument used, data collection, and data analysis.

Research Questions

The purpose of this study was to examine the relationships between psychosocial development and student housing environments. The study controlled for the effect of gender, age, ethnicity, affiliation, involvement, and employment. The following research questions guided this study:

Research Question One: Were there significant mean differences in psychosocial development (as measured by the combined task scores of the SDTLA: mature interpersonal relationships, purpose, and autonomy) for individuals of different housing environments, after removing the effects of gender, age, ethnicity, affiliation, involvement, and employment?

Research Question Two: Were there significant mean differences in MIR for individuals of different housing environments, after removing the effects of gender, age, ethnicity, affiliation, involvement, and employment?

Research Question Three: Were there significant mean differences in psychosocial development PUR for individuals of different housing environments, after removing the effects of gender, age, ethnicity, affiliation, involvement, and employment?

Research Question Four: Were there significant mean differences in psychosocial development AUT for individuals of different housing environments, after removing the effects of gender, age, ethnicity, affiliation, involvement, and employment?

Research Design

Due to the nature of the investigation into the relationship between psychosocial development and student housing, the researcher chose a quantitative research design. Quantitative methods employ strategies to indentify variables to study, verify theories, or collect data to test hypotheses (Creswell, 2003). Quantitative information is gathered through the use of experiments and surveys with closed-ended questions, predetermined approaches, and numeric data (Creswell, 2003). The quantitative approach is viewed as less biased and is subjected to a variety of standards of reliability and validity (Creswell, 2003). Statistical analysis yields generalizable interpretations of the data. Sample sizes typically are large for quantitative studies because with the increase in sample size the standard error is decreased and the power of the test is increased (Hinkle, Wiersma, &

Jurs, 2003). Due to the research questions, the sample size, and the purpose of the study, the quantitative approach is well suited for this study (Creswell, 2003).

Population of Study

Upon receiving clearance from the Institutional Research Board of both Clemson University and the research site, permission to collect the data was approved. Also, the researcher obtained approval by the appropriate housing staff at the research site. By obtaining their permission, the research site's housing staff members provided email addresses of students residing within the designated environments to the researcher.

The population considered for this study consisted of first-year, traditionally-aged students living on campus within university housing at the research site for the spring of 2010. The study only considered students within three residential living environments: (a) modified-traditional residence halls, (b) adjoining suite style residence halls, and (c) super-suite style residence halls. From these residential environments, 93 residents of the super-suite style, 200 residents of the modified-traditional, and 200 residents of the adjoining suites were asked to complete the instrument. Participation by the subjects was voluntary. This study utilized a sample size of 87 to draw inferences about the data. For this study, the researcher had access to the population and examined the single population at one point in time.

Instrumentation

The Student Development Task and Lifestyle Assessment (SDTLA) is a tool designed to assess psychosocial student development as described by Chickering

(Winston, Miller, & Cooper, 1999). This instrument measures psychosocial development in the areas of life purpose, mature interpersonal relationships, academic autonomy, and the establishment of healthy lifestyles (Winston, Miller, & Cooper, 1999). The instrument represents a sample of behavior and reports about feelings and attitudes that are expected to be exhibited by students upon achievement of particular developmental tasks common to traditionally-aged (17-25 years of age) college students (Winston, Miller, & Cooper, 1999).

The SDTLA is the fourth edition of this developmental task assessment instrument. The first edition of the instrument, Student Developmental Task Inventory (SDTI), was created by Miller, Prince, and Winston in 1974 (Winston, Miller, & Cooper, 1999). The researchers saw need to "reword some items and to give them a more behavioral phrasings and to restructure others in order to improve the psychometric properties of the instrument" (Winston, Miller, & Cooper, 1999, p.24). These changes were adopted in the second edition of the Student Developmental Task Inventory (SDTI-2) which was published in 1979 (Winston, Miller, & Cooper, 1999).

In 1984, the researchers began to revise the SDTI-2 in an attempt to include questions regarding cultural activities, attention to health and wellness issues, and identification of response bias. The researchers also aimed to broaden the definition of relationships in the mature Interpersonal Relationships to include gay, lesbian, and bisexual students. These changes were integrated into the Student Developmental Task and Lifestyle Inventory (SDTLI) of 1987.

In 1991, revisions of the SDTLI had begun. The researchers desired to reinstate the autonomy task that had been eliminated during the revision of the SDTLI. The goal of the new instrument would be to create a more useful tool for "research, evaluation, and outcomes assessment purposes, and a need to further refine the measure of intimacy" (p.24). Throughout the editing process, the researchers eliminated the intimacy measure due to a "fluid self definition of intimacy during college years" (p.24). Another significant change in the instrument was the response format. The previous three versions of the instrument used a true-false response format. These changes were all included in the 1998 publication of The Student Developmental Task and Lifestyles Assessment (SDTLA).

The SDTLA builds upon Chickering and Reisser's (1993) revision of Chickering's (1969) theory of educational identity. The current version, known as the Student Developmental Task and Lifestyle Assessment (SDTLA), is a 153 multiple-choice question survey, and it employs a five point Likert scale with five being the most favorable to measure psychosocial development. The instrument measures the three developmental tasks: (a) Establishing and Clarifying Purpose, (b) Developing Autonomy, and (c) Developing Mature Interpersonal Relationships. Ten total subtasks also exist as further delineations of the three developmental tasks. The instrument results in one score for each of the three tasks (Establishing and Clarifying Purpose, Developing Autonomy, and Developing Mature Interpersonal Relationships) of the SDTLA. Reliability estimates for each task and subtasks are provided below (see Table 3.1).

Establishing and Clarifying Purpose (PUR): This task measures if students: (a) explored and defined their educational goals and plans; (b) synthesized knowledge about the world of work; (c) established personal direction for their future; and (d) exhibited a wide range of cultural interests and participated in cultural events. Establishing and Clarifying Purpose consists of 51 questions separated into four subtasks: Educational Involvement (EI), Career Planning (CP), Lifestyle Planning (LP), and Cultural Participation (CUP). Students who have high achievement on this task have a clearly defined path to obtain their specific educational and vocational objectives while accounting for personal, ethical, and religious values. Furthermore, these students have diverse interests and active participation in cultural events (Winston, Miller, & Cooper, 1999).

Developing Autonomy (AUT): AUT consists of 51 questions separated into four subtasks: Emotional Autonomy (EA), Interdependence (IND), Academic Autonomy (AA), and Instrumental Autonomy (AI). Developing Autonomy measures if students can : (a) operate independent of others' continuous reassurance; (b) independently structure their lives to allow satisfaction of daily needs and responsibilities; (c) manage their time independently; and (d) be a contributing member of their community and their society (Winston, Miller, & Cooper, 1999).

Mature Interpersonal Relationships (MIR): MIR has 24 questions which are separated into two subtasks: Peer Relationships (PR) and Tolerance (TOL). This task measures if students: (a) have open honest relationships with peers; and (b) show respect for and acceptance for diverse individuals (Winston, Miller, & Cooper, 1999).

Table 3.1

Reliability Estimates

Tasks, Subtasks, Scale Descriptions	Cronback's Alpha	N of Items
Establishing and Clarifying Purpose Task	0.895	51
Educational Involvement	0.693	14
Cultural Participation	0.71	10
Career Planning	0.828	14
Lifestyle Planning	0.773	13
Mature Interpersonal Relationship Task	0.664	24
Peer Relationships	0.575	10
Tolerance	0.639	14
Developing Autonomy Task	0.884	51
Emotional Autonomy	0.68	17
Interdependence	0.814	14
Academic Autonomy	0.773	11
Instrumental Autonomy	0.544	9
Salubrious Lifestyle	0.735	17
Response Bias	0.347	6

Variables

There are six independent variables for this study: (a) gender; (b) ethnicity; (c) Greek affiliation; (d) hours of employment; (e) hours of involvement in clubs and organizations; and (f) type housing environment. The dependent variables in this study are the three task scores obtained from the Student Development Task and Lifestyle Assessment (SDTLA): (a) Establishing and Clarifying Purpose (PUR) score, (b) Developing Autonomy (AUT) score, and (c) Establishing Mature Interpersonal

Relationships (MIR) score as measured by the Student developmental Task and Lifestyle Assessment (SDTLA).

Data Collection

The SDTLA was designed to be administered after at least three to four weeks in the semester (Winston, et al., 1999). This acclimation period allows the student an opportunity to experience the college environment. Without this acclimation period, the students may have not yet been exposed to particular activities for which the instrument investigates (Winston, et al., 1999).

During the fall semester of 2009, the sample of students living in Modified-traditional residence halls, adjoining suite style residence halls, and super-suite style residence halls was identified by the Office of Student Housing at the research site. During the spring semester of 2010, a pre-notice email was sent to individuals within each housing environment explaining the purpose and the opportunity to participate in the survey. A week later, an online version of the SDTLA instrument was emailed to the sample through the instrument's testing center.

Each student received an email from the instrument's testing center informing them of the purpose of the study; average time of completion; the confidentiality of their data; the lack of risks for their participation; and information regarding a $250 raffle for completion of the survey. Each student was also provided with a survey link and instructions to participate and an institutional-specific username and password to gain access to the questionnaire. Finally, each student was provided with the Clemson

University Office of Research Compliance and the researcher's contact information in case of any questions or concerns of this study.

Since each subject was provided his/her own username and password, the participants could complete the survey at their own convenience. The survey remained open for twenty-four days to allow time for students to complete the survey. The Appalachian State University's testing center sent three follow-up reminder emails the students after seven, fourteen, and twenty-one days after the initial distribution of the survey instrument. Each reminder email provided them with the same instructions from the initial email. After the twenty-fourth day the survey was closed, preventing any other students from participating.

The participants completed research questions which investigated their: (a) campus involvement with extracurricular activities; (b) affiliation with Greek letter organizations; (c) athletic participation; (d) employment; (e) race/ethnicity; and (f) gender. The participants then completed form 1.99 of the Student Developmental Task and Lifestyle Assessment (SDTLA), which measured levels of student development on the establishing and clarifying purpose task, establishing and clarifying purpose, and developing mature interpersonal relationships. After completion of the instrument, each student was able to view their results for each task of the SDTLA.

Following the end of the collection period, participants received an email thanking them for their participation. After the collection period, the Appalachian State University's testing center emailed the results of the survey were emailed to the researcher. The data were gathered for each of the three separate samples living in three

different construction types of residence halls, and were compared using statistical analyses.

Data Analysis

Descriptive and inferential statistics were used to analyze the data collected. The data set was analyzed using *Statistical Package for the Social Sciences (SPSS) 17.0* (Norušis, 2009). The independent variable data were coded and entered into SPSS. These variables included: Residential design: 1- adjoined suite halls, 2- super-suite halls, 3- modified traditional halls; Greek affiliation: 1- Greek, 2- non-Greek; Gender: 1-male, 2- female; Race: 1 -Black or African American, 2 -Hispanic, Latino/a, or Mexican American 3- Asian American or Pacific Islander, 4- Native American/People, 5 -White or Caucasian/European, 6- Bi-racial or multiracial, 7– Other; Hours of Employment: 1- no employment, 2- between one hour and ten hours per week, 3- between eleven hour and twenty hours per week, 4- greater than twenty hours per week; Clubs and Organizational Involvement: 1- no involvement, 2- between one hour and ten hours per week, 3- between eleven hour and twenty hours per week, 4- greater than twenty hours per week. The continuous dependent variable data were entered into Statistical Package for the Social Sciences (SPSS). The standard scores for the SDTLA were used to measure the psychosocial development. The analyses of the data were carried out using SPSS 17 software (Norušis, 2009).

An alpha level of .05 was used for this study. The alpha level is the probability of making a Type I error which means rejecting the null hypothesis when it is true. The

alpha level of .05 is commonly used in social science research because the alpha allows one false indication per 20 cases. This error of five percent has been acknowledged as the normal amount of accepted error (Hinkle, et al., 2003).

The analysis used to answer the research question one of this study was multivariate analysis of covariance (MANCOVA). A MANCOVA examines if there are statistical significant mean differences among groups after adjusting the newly created dependent variable (a linear combination of all original dependent variables) for differences on one or more covariates. The covariate effects are removed from the analysis, leaving the researcher a clear picture of the true effect of the independent variable(s) on the multiple dependent variables (Mertler & Vannatta, 2010). The MANCOVA was used to answer research question one. Pre-analysis Data Screening for MANCOVA was performed to assess the adequacy of fit between the data and the assumptions of a specific procedure. The data met all assumptions for a factorial multivariate analysis of covariance. The researcher reviewed the results of the tests of between-subject effects of the MANCOVA to answer the research questions two, three, and four of this study.

Pre-analysis Data Screening for Factorial Multivariate Analysis of Covariance

Mertler and Vannatta (2010) stated that prior to conducting a multivariate analysis, the researcher should screen their data. There are four purposes to Data screening. The four purposes are: (a) to test the accuracy of the data collected; (b) to handle missing or incomplete data; (c) to assess the effects of extreme values (outliers);

and (d) to assess the adequacy of fit between the data and the assumptions of a specific procedure. The following section describes the pre-analysis data screening process.

Accuracy of Data. The data for this study were screened. The data were collected online to assure the accuracy through an online survey. The data were reviewed by the researcher to ensure no cases had values outside of the range of possible values and to determine that each case was coded correctly. The data were determined to be accurate.

Completeness of Data. To ensure data would be complete, the researcher required all survey responses to be complete to be included within this study. If the participant did not fully complete the survey, their partial data were not analyzed. The researcher reviewed the data to determine if there were any missing data. No data were found to be missing.

Data Outliers. To assess the effects of extreme values, SPSS 17 was used to perform a statistical procedure known as the Mahalanobis distance to identify outliers within the data. The Mahalanobis distance is defined as "the distance of a case from the centroid of the remaining cases where the centroid is the point created by the means of all variables" (Mertler & Vannatta, 2010, p.29). Variables were transformed to eliminate outliers as part of the data screening process. The following box plots (Figures 3.1, 3.2, and 3.3) visually identify any outliers for psychosocial development of students within the three construction types for this study. As can be seen from these Figure 3.1, Figure 3.2, and Figure 3.3, the data were transformed to include each outlier.

Figure 3.1

Box Plot of Data Outliers for Developing Purpose

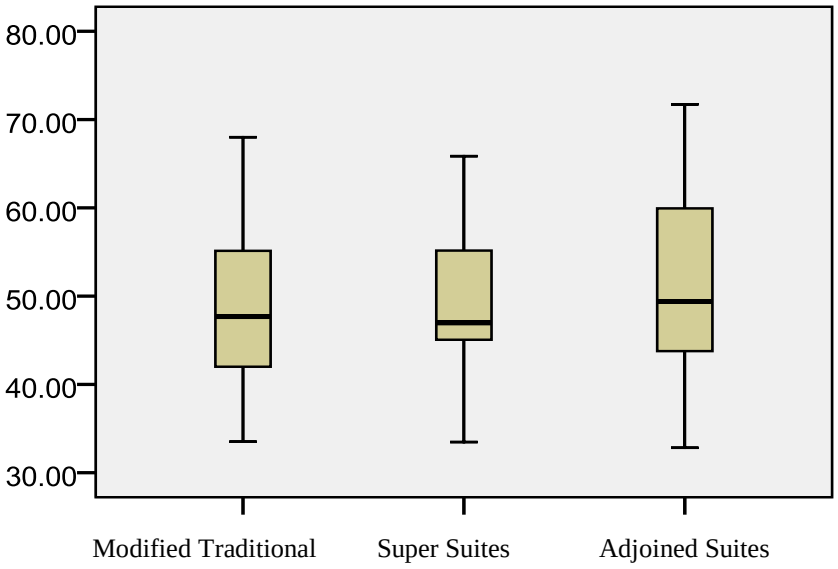


Figure 3.2

Box Plot of Data Outliers for Mature Interpersonal Relationships

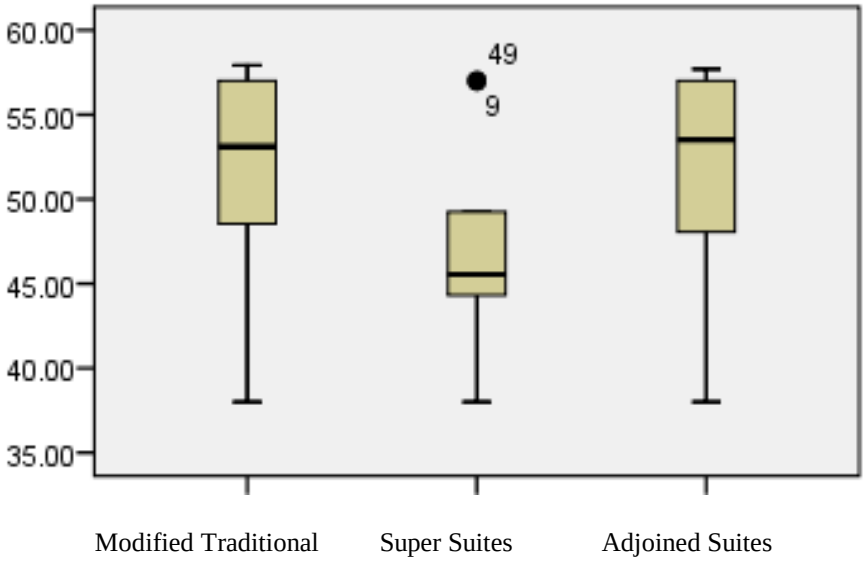
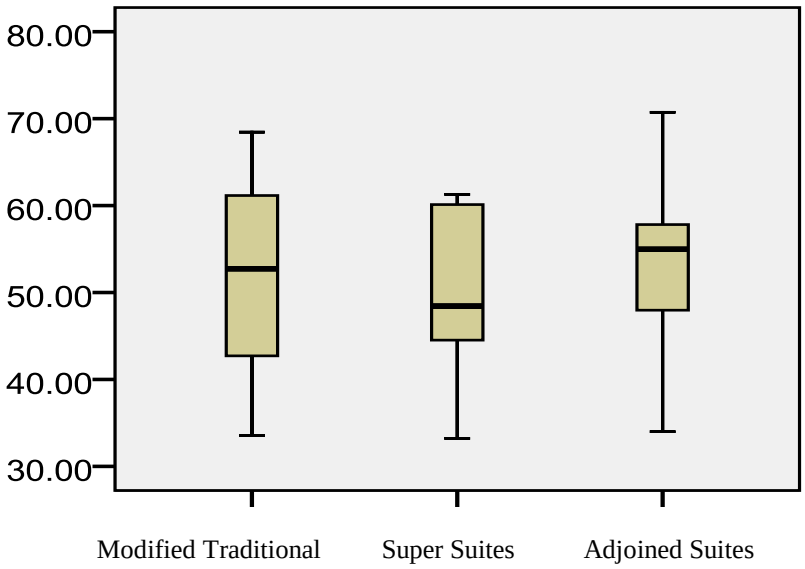


Figure 3.3

Box Plot of Data Outliers for Developing Autonomy



Assumptions. According to Mertler and Vannatta (2010) for a factorial Multivariate Analysis of Covariance to be applied correctly, data must adhere to the six assumptions:

(1) Random Sampling: The observations within each sample must be randomly sampled and must be independent of each other;

(2) Normality: The distributions of scores on the dependent variables must be normal in populations from which the data were sampled;

(3) Homoscedasticity: the distributions of the scores on the dependent variables must have equal variances;

(4) Linearity: Linear relationships must exist between all pairs of DVs, all pairs of covariates, and all DV-covariate pairs in each cell;

(5) Homogeneity of Regression Slopes: If two covariates are used, the regression planes for each group must be homogeneous or parallel. If more than two covariates are used, the regression hyperplanes must be homogeneous; and

(6) Covariate Reliability: The covariates are reliable and are measured without error.

The data in this study adheres to these six assumptions. Each of the assumptions for Multivariate Analysis of Covariance is described below.

Random Sampling. The assumption of random sampling was addressed in the design of the study. Prior to survey administration, students were randomly assigned to particular housing types. The assignment of these students met all requirements for the samples to be random.

Normality. According to Mertler and Vannatta (2002) normality can be assessed by visually inspecting histograms and boxplots of the graphed data points addressing the second assumption. Osbourne and Waters (2002) had indentified this inspection as a commonly practiced way to determine normality. The following histograms (see figures 3.4, 3.5, & 3.6) describe the distribution of each dependent variable for each of the housing environments.

Figure 3.4

Histogram of Distribution of Establishing Purpose to Assess Normality

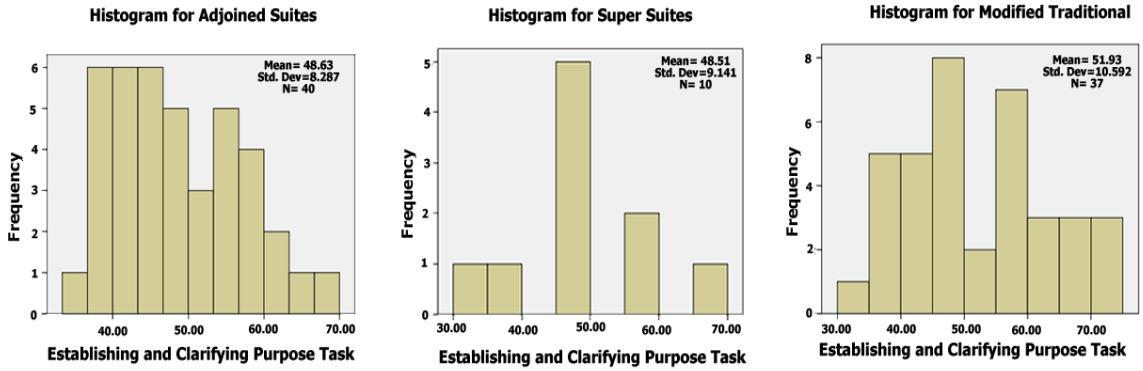


Figure 3.5

Histogram of Distribution of Mature Interpersonal Relationships to Assess Normality

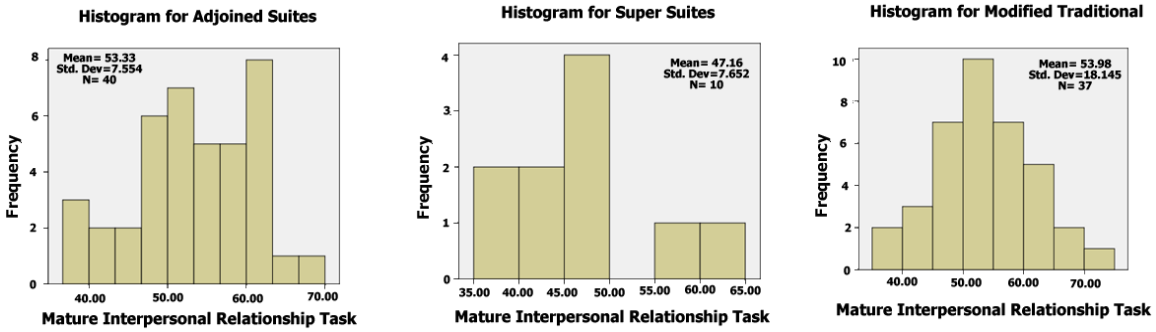
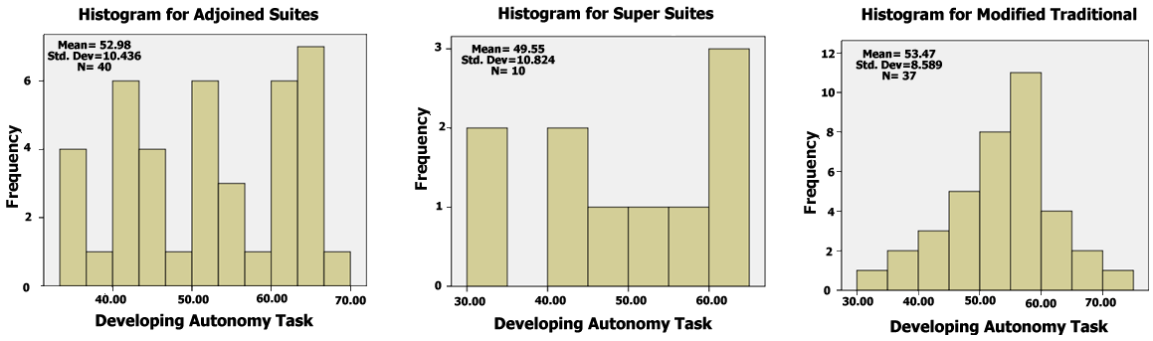


Figure 3.6

Histogram of Distribution of Establishing Autonomy to Assess Normality



Mertler and Vannatta (2010) stated the assumption of normal distribution is best tested statistically by examining the values and associated significance tests for skewness and kurtosis by using the Kolmogorov-Smirnov test. Skewness is a "quantitative measure of the degree of symmetry of a distribution about the mean" (Mertler & Vannatta, 2010, p.30). Kurtosis is a quantitative measure of the degree of peakedness of a distribution" (Mertler & Vannatta, 2010, p.30). Upon analysis, the three dependent variables were determined to be normally distributed for each of the housing construction types. Table 3.2 describes the results of the Kolmogorov-Smirnov test. The Kolmogorov-Smirnov test determines whether a distribution of scores is significantly different from the normal distribution. As seen in the chart below the majority of the data is normally distributed since it exceeds the significance of .05.

Table 3.2

Test of Normality

Residential Environments		Kolmogorov-Smirnov[a] Statistic	Df	Sig.
Purpose	Adjoined Suites	.090	40	.200*
	Super Suites	.153	10	.200*
	Modified Traditional	.116	37	.200*
Mature Interpersonal Relationships	Adjoined Suites	.077	40	.200*
	Super Suites	.220	10	.186
	Modified Traditional	.063	37	.200*
Autonomy	Adjoined Suites	.139	40	.049
	Super Suites	.226	10	.157
	Modified Traditional	.090	37	.200*

Homoscedasticity. Homoscedasticity is the "assumption that the variability in scores for one continuous variable is roughly the same at all values of another continuous variable (Mertler & Vannatta, 2010, p.33). The assumption of Homoscedasticity is assessed using the Box's Test for equality of variance-covariance matrices. The Box's test allows the researcher to determine if the covariance matrices are equal (Mertler & Vannatta, 2010). The Box's test was tested in a preliminary MANCOVA using a multivariate General Linear Model. The preliminary MANCOVA was customized to create an interaction between the independent variable and the covariates. The Box's Test

(see Figure 3.8) indicated homogeneity of variance-covariance, F (12, 3093.103) = 1.089, p= .365.

Table 3.3

Box's Test of Equality of Covariance Matrices[a]

Box's M	14.303
F	1.089
df1	12
df2	3093.103
Sig.	.365

Tests the null hypothesis that the observed covariance matrices of the dependent variables are equal across groups.

a. Design: Intercept + Residence * Greek * Employment * Extracurricular_Involvement * Gender * Race

Linearity. Linearity is the assumption that "there is a straight-line relationship between two variables (Mertler & Vannatta, 2010, p.32). Linearity can be assessed crudely by inspecting the bivariate scatterplots. For MANCOVAs, the assessment of these scatterplots is recommended Mertler & Vannatta, 2010). The scatterplots below (see Figures 3.7, 3.8, 3.9) each indicate linear relationships between the dependent variables of autonomy, purpose, and mature interpersonal relationships for the three student housing construction types.

Figure 3.7

Bivariate Scatterplot for Adjoined Suites

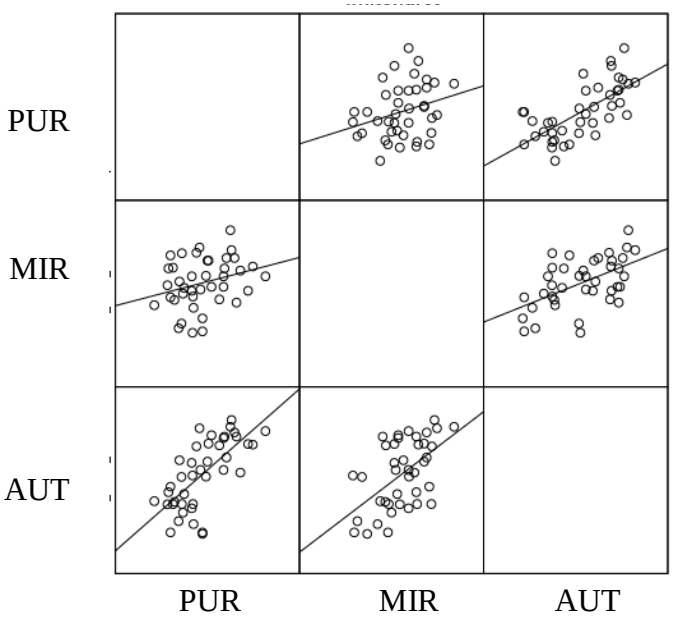


Figure 3.8

Bivariate Scatterplot for Modified Traditional

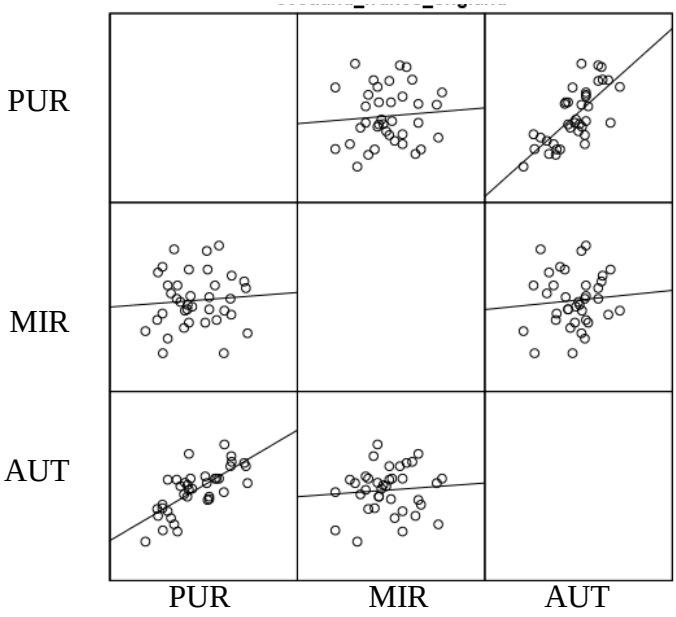
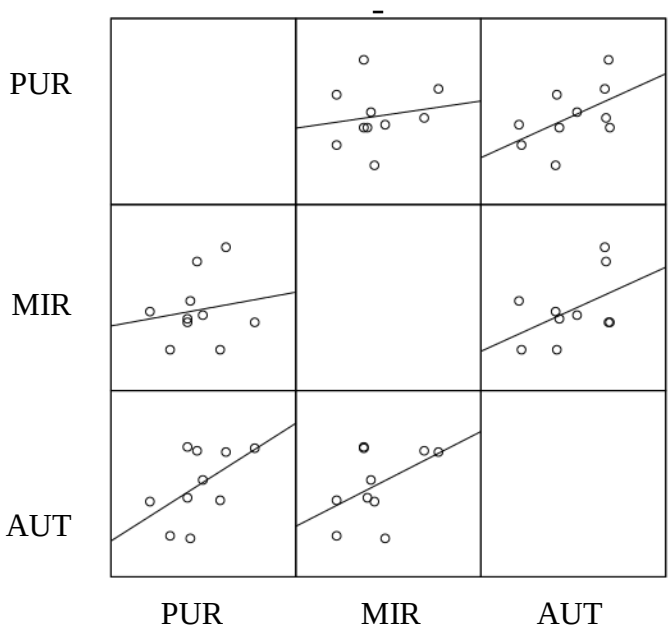


Figure 3.9

Bivariate Scatterplot for Super-Suites



Homogeneity of Regression Slopes. The Homogeneity of Regression Slopes was tested in a preliminary MANCOVA using a multivariate General Linear Model. The preliminary MANCOVA was customized to create an interaction between the independent variable and the covariates. The Test for Homogeneity of Regression Slopes) reveals that factor and covariate interaction are not significant, Wilk's Λ =..944, F(9, 180.247) =.480, p=.887. Since the factor-covariate interaction is not significant, the assumption of homogeneity of regression slopes was met.

***Covariate Reliability*.** As with the dependent and other independent variables, the covariate data were collected through on an online survey to assure the accuracy. The data were reviewed by the researcher to ensure no cases have values outside of the range

of possible values and to determine that each case was coded correctly. The data were determined to be accurate.

The data adhered to the six assumptions for a factorial Multivariate Analysis of Covariance. This allowed the research to continue with the statistical analysis of the data to determine if the impact of various construction types of student housing on the psychosocial development of students.

Summary

The purpose of this chapter was to outline the methodology chosen to empirically investigate the relationship between psychosocial development and student housing construction designs. The chapter reintroduced the research questions; discussed the population considered for the study; and described the procedure used to conduct this investigation. This chapter described the research design, unit of analysis, variables identification, sample selection, instrument used, data collection, and data analysis.

CHAPTER FOUR

PRESENTATION OF FINDINGS

Introduction

The main purpose of this study was to determine if there were any significant difference in psychosocial development (autonomy, mature interpersonal relationship, and purpose) of first year students living in super-suite, modified traditional, and adjoined suite residential hall designs. Collected data were analyzed using descriptive statistics, Multivariate Analysis of Covariance, and Analysis of Covariance. Chapter Four outlines the statistical results from the data analysis. Presented first in this chapter is the demographic characteristics of the students who participated in this study. The demographic information includes both the frequency distributions and descriptive statistics for the participants of the study. Chapter Four describes the statistical results from the data analysis for each of the research questions. The study was guided by the following research questions:

Research Question One: Were there significant mean differences in psychosocial development (as measured by the combined task scores of the SDTLA: mature interpersonal relationships, purpose, and autonomy) for individuals of different housing environments, after removing the effect of gender, age, ethnicity, affiliation, involvement, and employment?

Research Question Two: Were there significant mean differences in MIR for individuals of different housing environments, after removing the effect of gender, age, ethnicity, affiliation, involvement, and employment?

Research Question Three: Were there significant mean differences in psychosocial development PUR for individuals of different housing environments, after removing the effect of gender, age, ethnicity, affiliation, involvement, and employment?

Research Question Four: Were there significant mean differences in psychosocial development AUT for individuals of different housing environments, after removing the effect of gender, age, ethnicity, affiliation, involvement, and employment?

Demographic Information

Construction Type

Participants in the study included a total of 87 students. The survey participants included students who reside in three construction types of student housing. These housing types are: (a) super suite; (b) adjoined suite, and (c) modified traditional. Table 4.1 shows the frequency distributions of first-year students residing in the three construction types who participated in this study.

Table 4.1

Respondent Frequency Distribution by Student Housing Construction Type

Construction Type	F	Percentage
Super Suites	10	11.5%
Adjoined Suites	40	46.0%
Modified Traditional	37	42.5%
Total	87	100%

Of the 87 respondents, 10 of the participants resided in the super suite construction type. These super suite students accounted for only 11.5% of the total respondents. Of the respondents, 40 participants resided in the adjoined suite construction type. These adjoined suite students accounted for 46% of the total respondents. The remaining 37 respondents resided in a modified traditional construction type. The modified traditional students accounted for 42.5% of the total respondents.

Gender

Survey participants were also asked about their gender. The majority of the participants for this study are female and accounted for over 70%. Table 4.4 shows the frequency distributions of gender among survey study participants.

Table 4.2

Respondent Frequency Distribution by Gender

Gender	F	Percentage
Female	63	72.4%
Male	24	27.6%
Total	87	100%

Sixty-three of the 87 of the survey participants were female which accounted for 72.4%. Males accounted for the remaining 27.6% of all survey participants, with a total of 24 survey participants.

Ethnicity

The researcher included seven ethnicity categories for which the participants could use to identify their ethnicity. Of these seven ethnicity categories, participants fell into only five categories. The results for the ethnicity distributions among research participants are included in Table 4.3.

Table 4.3

Respondent Frequency Distribution by Ethnicity

Ethnicity Categories	F	Percentage
Black or African American	27	31.0%
Hispanic	4	4.6%
Asian or Pacific Islander	3	3.4%
White or Caucasian	50	57.6%
Bi-racial or Multiracial	3	3.4%
Total	87	100%

Caucasians represented the largest ethnicity among survey participants. Fifty of the 87 participants were Caucasian which accounted for 57.6% of the participants. The Asian/Pacific Islander and Bi-racial/Multiracial ethnic groups each had 3 of the 87 participants which accounted for 3.4% respectively. Four participants identified themselves as Hispanic, which accounts for 4.6 percent. Survey participants that identified themselves as African-American accounted for 31% with 27 participants. Overall, there were more Caucasian students than any other ethnicity.

Employment

The researcher included four categories for which the participants could use to identify the number of hours they worked per week. The four categories are: (a) not employed; (b) 1 to 10 hours; (c) 11 to 20 hours; and (d) over 20 hours. Table 4.4 shows the frequency distributions for each of the four employment categories.

Table 4.4

Respondent Frequency Distribution by Hours of Employment

Hours per Week	F	Percentage
Not employed	65	74.7%
1 to 10 hours	7	8.0%
11 to 20 hours	12	13.8%
Greater than 20 hours	3	3.4%
Total	87	100%

The largest percentage of survey participants, 74.7%, classified themselves as unemployed. Eight percent indentified working from 1 to 10 hours per week. Only 13.8 percent classified themselves as working 11 to 20 hours per week. The remaining 3.4 percent of survey participants worked greater than 20 hours per week.

Greek Affiliation

Survey participants were asked about their affiliation with Greek organizations. The participants classified themselves as either a member or not a member of a Greek organization. Table 4.5 shows the frequency distributions of Greek affiliation among survey study participants.

Table 4.5

Respondent Frequency Distribution by Greek Membership

Greek Status	F	Percentage
Greek Member	11	12.6%
Non-Greek Member	76	87.4%
Total	87	100%

Of the 87 respondents, 76 of the participants identified themselves as not affiliated with Greek organizations. Non-Greek members accounted for 87.4 percent of the participants. The remaining 12.6 percent of sample identified themselves as being affiliated with Greek organizations.

Extracurricular Activities

The researcher included four categories for which the participants could use to identify the number of hours they were involved with extracurricular activities. The four categories are: (a) not involved; (b) 1 to 10 hours; (c) 11 to 20 hours; and (d) over 20 hours. Table 4.6 shows the frequency distributions for each of the four extracurricular categories.

Table 4.6

Respondent Frequency Distribution by hours of Extracurricular Activities

Hours per Week	F	Percentage
Not involved	30	34.5%
1 to 10 hours	44	50.6%
11 to 20 hours	6	6.9%
Greater than 20 hours	7	8.0%
Total	87	100%

Of the 87 participants, 44 classified themselves as participating in extracurricular activities for 1 to 10 hours per week. Only 6.9 percent of the participants identified themselves as being involved for 11 to 20 hours. Another 8.0% of the participants classified their working status as greater than 20 hours. The remaining 30 survey participants, 34.5%, were not employed throughout the academic year.

Analysis of Research Questions

Research Question One

Multivariate analysis of covariance (MANCOVA) was conducted to determine the effect of residential hall construction type on psychosocial development as measured by Purpose, Mature Interpersonal Relationships, and Autonomy while controlling for Greek involvement, employment of the student, extracurricular involvement, gender, and race/ethnicity. Prior to the test, variables were transformed to eliminate outliers. Autonomy was transformed; those less than or equal to 33 were recoded 34. Mature

Interpersonal relationships was transformed; those less than or equal to 37 were recoded 38. Purpose was not transformed due to no outliers within the data. MANCOVA results revealed no significant main effect due to construction types on the combined dependent variable, Wilk's Λ =.983, F(6, 154) =1.491, p=.185, multivariate η^2 =0.55. The race covariate significantly influences the combined dependent variable, Wilk's Λ =.901, F(3, 77) =.2.824, p=.044, multivariate η^2=0.99. A trend was identified for extracurricular involvement covariate, Wilk's Λ =.911, F(3, 77) =2.51, p=.065, multivariate η^2 =0.089. Since no significant main effect was found for construction types, the test of between-subjects effects were used to investigate trends for each dependent variable. Research questions two, three, and four used analysis of covariance for each dependent variable as a follow-up test to MANCOVA by examining the test of between-subjects effects.

Research Question Two

An examination of the tests between-subject effects from the MANCOVA was to determine the effect of construction type on mature interpersonal relationships. The covariates were Greek involvement, employment of the student, extracurricular involvement, gender, and race/ethnicity. Data screening occurred during the MANCOVA. The tests between-subject effects results indicated no significant results or trends for construction type, F (2, 86) =2.23, p=.11. Table 4.7 presents the adjusted means for mature interpersonal relationships.

Table 4.7

Adjusted and Unadjusted Construction Type Means

for Mature Interpersonal Relationships

Construction Type	Adjusted M	Unadjusted M
Adjoined Suites	53.24	53.33
Super Suites	47.55	47.16
Modified Traditional	53.97	53.98

Table 4.7 indicated that students living in modified traditional and adjoined suite construction types have developed higher levels of mature interpersonal relationships than those students living in the super suite construction type.

Research Question Three

An examination of the tests between-subject effects from the MANCOVA was to determine the effect of construction type on purpose. The covariates were Greek involvement, employment of the student, extracurricular involvement, gender, and race/ethnicity. Data screening occurred during the MANCOVA. The tests between-subject effects results indicated a trend for construction type, $F(2, 86) = 2.34$, $p = .10$. Table 4.8 presents the adjusted means for purpose.

Table 4.8

Adjusted and Unadjusted Construction Type Means for Developing Purpose

Construction Type	Adjusted M	Adjusted M
Adjoined Suites	48.63	48.63
Super Suites	48.51	48.51
Modified Traditional	51.93	51.93

Table 4.8 indicated that students living in modified traditional (51.93) construction type have developed higher levels of purpose than those students living in the adjoined suite (48.63.) and super suite construction types (48.51).

Research Question Four

An examination of the tests between-subject effects from the MANCOVA was to determine the effect of construction type on autonomy. The covariates were Greek involvement, employment of the student, extracurricular involvement, gender, and race/ethnicity. Data screening occurred during the MANCOVA. The tests between-subject effects results indicated no significant results or trends for construction type $F(2, 86) = 1.66$, $p = .20$. Table 4.9 presents the adjusted means for autonomy.

Table 4.9

Adjusted and Unadjusted Construction Type Means for Autonomy

Construction Type	Adjusted M	Unadjusted M
Adjoined Suites	51.68	51.98
Super Suites	48.23	49.55
Modified Traditional	54.15	53.47

Table 4.9 indicated that students living in modified traditional (54.15) construction type have developed higher levels of autonomy than those students living in the adjoined suite (51.68) and super suite construction types (48.23). Also the results indicated that the adjoined suite (51.68) have developed higher levels of autonomy than those students living in super suite construction types (48.23).

Summary

The purpose of this chapter was to present the findings of the investigation of the impact of student housing construction type on psychosocial development. A total of 87 first-year students were utilized as the population. These students resided in three different construction types of residential halls: adjoined suites (46.0%) modified traditional (42.5%), and super suites (11.5%). The majority of the population was females (72.4%) and participated in extracurricular activities (50.6%). The ethnic majority of the population were white or Caucasian (57.6%) and Black or African American (31.0%). The majority of the students were not employed (74.7%) and neither were the population members of Greek organizations (87.4%).

The multivariate analysis of covariance (MANCOVA) revealed no significant differences among the construction types on the combined dependent variable. The race covariate significantly influences the combined dependent variable. Since the MANCOVA did not indicate significant differences for construction type, individual analysis of covariance (ANCOVA) could not be conducted. Instead, the between-subject effects were analyzed for each was conducted on each dependent variable as a follow-up test to the MANCOVA. Although, between-subject effects results for each dependent variable indicated no significant main effect for construction type, a trend was identified for the developing of purpose. A comparison of the adjusted means for the dependent variables revealed that students living in modified traditional construction type have developed higher levels of autonomy, and purpose than those students living in adjoined suites and super suite construction types. The adjusted means also revealed that the modified traditional construction type had developed higher levels of mature interpersonal relationships than students living in super suite construction types. Finally, the adjusted means for autonomy, purpose, and mature interpersonal relationships indicated that students living in adjoined suites had developed higher levels of autonomy and mature interpersonal relationships than students living in super suites.

CHAPTER FIVE

DISCUSSION

The purpose of this study was to examine the impact of university housing construction on psychosocial development of first-year students. The first four chapters provided an introduction to the study, review of literature, methodology, and presentation of findings. This final chapter: (a) summarizes the previous chapters; (b) presents conclusions; (c) delimitations; (d) implications for theory, research, and practice; and (e) suggestions for future research.

Summary of Literature

The literature review of American higher education history showed that student housing construction types developed over time. These construction types evolved to meet the needs and desires of the students. Students reside in many of these various styles of housing to this today. In 2000, higher education saw its largest growth in population with the arrival of the first 100-million-person generation: "the millennial generation" (Howe & Strauss, 2000). The enrollment increase forced universities to construct residence halls to accommodate these students (Howe & Strauss, 2000).

Since 2001, over half of the residential halls constructed were apartment style or super suite living arrangements (Balogh, Grimm, & Hardy, 2005). Apartment style or super suite living arrangements were typically constructed to meet the needs of upper-class students, not first-year students (Zeller & Angelini, 2003). With the increase of Millennial student enrollment, some campuses were experimenting the placement of first-

year students in the different housing environments which were traditionally constructed for upper-level students (Caplinger, et al., 2009).

A review of the literature provided a theoretical and conceptual framework for the research. Conceptually, this study combined campus ecology (Strange & Banning, 2001) with the theoretical framework of Chickering (Chickering, 1969; Chickering & Reisser, 1993) to address the research questions. Included was a general overview of Chickering's (1993) theory of identity development which states that students develop their psychosocial identity within a college environment. Chickering identified seven developmental tasks (vectors) which provided greater specificity to the concept of establishing identity throughout the entire college experience. Chickering's vectors of identity development are: (a) developing competence, (b) managing emotions, (c) moving through autonomy toward interdependence, (d) developing mature interpersonal relationships, (e) establishing identity, (f) developing purpose, and (g) developing integrity. This study asserts that the campus environment has an impact on the behavior of individuals within the environment. Strange and Banning (2001) stated that the campus physical environments serve as a behavior setting for both social and physical interactions through the human aggregate model. Therefore, an investigation into the relationship between various student housing designs and psychosocial development is necessary.

A literature review on student psychosocial development identified multiple variables that influenced their development. These variables include: gender comparisons, ethnic/racial differences, athletic involvement, Greek affiliation,

organizations and club involvement, student employment, and various student housing comparisons.

Many researchers (Greeley & Tinsey, 1988; Jordan-Cox, 1987; Jones & Watt, 1999, 2001; Pollard, Benton, & Hinz, 1983; Stonewater, 1987) concluded difference in the psychosocial development for men and women. Other researchers (Foubert et al., 2005) identified contradictory results. The majority of studies investigating if there were differences in psychosocial development due to gender found significant on developmental tasks as measured by one version of the SDTLA (Foubert et al., 2005; Greeley & Tinsey, 1988; Jones & Watt , 1999, 2001; Jordan-Cox, 1987; Pollard, Benton, & Hinz, 1983; Stonewater, 1987). Only one study found no differences due to gender on the SDTLA (Cooper, Dean, & Bell, 2007). The review of the literature identified ethnic/racial differences in psychosocial development (Cooper et al., 2007; Itzkowitz & Petrie, 1986; Pope, 2000; Sheehan & Pearson, 1995; Taub & McEwen, 1991, 1992).

Researchers (Saidla, et al., 1994; Sowa & Gressard, 1983) identified a difference in psychosocial development between athletes and non-athletes. Similar to athletic participation, researchers (Cooper et al., 1994; Foubert & Grainger, 2006) found a difference in participation in organizations and clubs for psychosocial development. Differences in Greek affiliation and involvement were found by researchers (Hunt & Rentz, 1994). Employment was found by researchers (Furr & Elling, 2000) to have both a positive and negative effect on psychosocial development of students.

The literature review indentified the impact of student housing on psychosocial development. Researchers (Astin, 1973; Chickering & Kuper, 1971; Chickering, 1974;

Miller, 1982; Pascarella, 1985; Scott, 1975; Welty, 1976) have investigated the effect of living on-campus compared to living off-campus. Other researchers (Brandon, Hirt, & Cameron, 2008; Erwin & Love, 1989; Janosik, Creamer, & Cross, 1988; Rodger, Johnson, & Wakabayashi, 2005) investigated the impact of environmental factors on psychosocial development.

Chickering and Kulper (1971) found students who lived on-campus participated in extracurricular activities and had more peer relationships than students living off campus. Astin (1973) found that living on campus improved the students' attitudes, behavior, and overall satisfaction of the university and provided more opportunities to interact with professors and increased the ability to receive guidance and advice from faculty and staff.

Scott (1975) found that residence hall students differed from non-residence hall students in personal development or self-actualization during the academic year. Welty (1976) indentified residential students participate more frequently in extracurricular activities, established new friendships, and had more student friends whom they had known previously. Miller (1982) indentified a significant difference between environments for emotional autonomy, instrumental autonomy, tolerance subtasks, developing autonomy and developing purpose.

Pascarella (1985) indentified the influence of on-campus living on intellectual and interpersonal self-concept as indirect. These results contradicted the previous findings of on-campus influence of psychosocial development. Living on-campus was positively

associated with student development by promoting higher levels of interaction and involvement with both peers and faculty (Pascarella, 1985).

The review of the literature also described the impact of environmental factors on psychosocial development. The findings of these studies supported an interaction between the development of students and the environment. Janosik, Creamer, and Cross (1988) found a higher level of competence associated with residential living due to the perception of a greater emotional support, greater involvement, and less competition. Erwin and Love (1989) indentified students living in Greek on-campus housing had a higher level of autonomy versus students living off-campus. Researchers (Brandon, Hirt, & Cameron, 2008; Rodger et al. 2005) indentified a difference between various residential environments and student peer interaction which was shown to influence psychosocial development.

Previous research on college student psychosocial development indicated gender, ethnic/racial, athletic involvement, Greek affiliation, organizations and club involvement, student employment affects students' development of autonomy, mature interpersonal relationships, and purpose; therefore, the current study controlled for these factors.

Summary of Findings

Demographics

The population used for this study included 87 first-year students from a large, four-year, public, research university in the Southeast. These students resided in three different construction types of residential halls: adjoined suites (46.0%) modified

traditional (42.5%), and super suites (11.5%). Most of the population were females (72.4%) and were either White/Caucasian (57.6%) or Black/African American (31.0%). The majority of the students: (a) were not employed (74.7%); (b) participated in extracurricular activities (50.6%); and (c) were not members of Greek organizations (87.4%).

Research Questions

The purpose of this study was to examine the impact of university housing construction on psychosocial development of first-year students. The four following research questions guided this study:

- Research Question One: Were there significant mean differences in psychosocial development (as measured by the combined task scores of the SDTLA: mature interpersonal relationships, purpose, and autonomy) for individuals of different housing environments, after removing the effects of gender, age, ethnicity, affiliation, involvement, and employment?
- Research Question Two: Are there significant mean differences in mature interpersonal relationships for individuals of different housing environments, after removing the effects of gender, age, ethnicity, affiliation, involvement, and employment?
- Research Question Three: Were there significant mean differences in psychosocial development purpose for individuals of different housing environments, after removing the effects of gender, age, ethnicity, affiliation, involvement, and employment?

- Research Question Four: Were there significant mean differences in psychosocial development autonomy for individuals of different housing environments, after removing the effects of gender, age, ethnicity, affiliation, involvement, and employment?

The study controlled for the effect of gender, age, ethnicity, affiliation, involvement, and employment. Multivariate analysis of covariance (MANCOVA) was conducted to determine the effect of residential hall construction type on psychosocial development. For research question one, a MANCOVA yielded no significant main effect due to construction types on the combined dependent variable [Wilk's Λ =.983, F(6, 154) =1.491, p=.185, multivariate η^2 =0.55] affirming that student housing construction types are not significant predictors of psychosocial development. The race was the only covariate found to significantly influence the combined dependent variable [Wilk's Λ =.901, F(3, 77) =.2.824, p=.044, multivariate η^2=0.99]. Research questions two, three, and four were each investigated using analysis of covariance.

The results of research questions two, three, and four indicated a trend between student housing construction types and the development of purpose. There were no significant results or trends between student construction types and the development of mature interpersonal relationships or the development of purpose. Using the adjusted means for each dependent variable, trends were identified modified traditional construction type to promote the development of autonomy, purpose, and mature interpersonal relationships better than the super-suite and adjoined suite construction

types. A trend was identified that adjoined suites promote mature interpersonal relationships and autonomy better than super suites.

Conclusion

The results of this study produced four major findings from which researchers and practitioners can make conclusions. First, this study showed that despite previous conflicting findings (Chickering & Kulper, 1971; Chickering, 1974; Scott, 1975; Welty, 1976; Astin, 1973; Miller, 1982; Pascarella, 1985; Janosik, Creamer, & Cross, 1988; Erwin & Love, 1989; Rodger, Johnson, & Wakabayashi, 2005; Brandon, Hirt, & Cameron, 2008), there is no significant main effect of housing on psychosocial development of first-year students when other variables such as race, gender, athletic involvement, extracurricular involvement, and employment were taken into consideration.

Second, this study investigated the impact of student housing construction types on each of the three dependent variables individually. Even though there was no significant main effect of housing on the on psychosocial development of first-year students during the MANCOVA, the researcher examined the between-subject effects results to identify trends. The between-subject effects for each dependent variable indicated a trend between developing of purpose and construction types. No trend was identified from the between-subject effects for mature interpersonal relationships or autonomy.

Third, this study showed suggests differences between construction types for all three measured variables of psychosocial development. A comparison of the adjusted means for the dependent variables revealed that students living in modified traditional construction type have developed higher levels of autonomy, and purpose than those students living in adjoined suites and super suite construction types. The adjusted means also revealed that the modified traditional construction type had developed higher levels of mature interpersonal relationships than students living in super suite construction types. The adjusted means for autonomy, purpose, and mature interpersonal relationships indicated that students living in adjoined suites had developed higher levels of autonomy and mature interpersonal relationships than students living in super suites.

Finally, this study identified that both race and extracurricular involvement influenced the psychosocial development of first-year students who lived on-campus. This study supported previous studies (Itzkowitz & Petrie, 1986; Taub & McEwen, 1991, 1992; Sheehan & Pearson, 1995; Pope, 2000; Cooper et al., 2007) by identifying that race significantly influenced the combination of the three psychosocial development variables. Previous studies (Cooper et al., 1994; Foubert & Grainger, 2006; Sowa & Gressard, 1983; Saidla, et al., 1994) on extracurricular involvement were supported by this study since a tend was identified between the extracurricular involvement covariate and the combined dependent variable of psychosocial development.

Implications

Theory and Research

This study used Chickering and Reissser's (1993) theory of identity development of college students and Strange and Banning's (2001) theory of campus ecology as theoretical foundations for the research study. The concept of campus ecology is an expansion of builds on Lewin's (1936) foundation equation (Banning & Bryner 2003) . Lewin (1936) described this interdependence within his the ecological equation of behavior. This formula indentifies that the environment and the individual both need to be analyzed to understand the behavior of the individual. The results of this study supported Strange and Banning's (2001) theory on campus ecology. In the case of this study, the resulted indicated that students' behavior (psychosocial development) is different for various environments (super-suites, adjoined suites, and modified traditional). These results can be used to expand the work of Strange and Banning to include different environmental types as defined by ACUHO-I (Day, et al., 2008; Day, et al., 2006; Grimm, et al., 2003; Grimm, et al., 2004).

One of the research project's primary objectives was to investigate differences between different on-campus living construction types. Previous research predominately had focused on comparing on-campus and off-campus differences. Utilizing three diverse construction designs, the study was able to show a psychosocial developmental difference between various on-campus residential designs. This finding provides researchers and practitioners with additional information that may impact their work in determining which environment is best suited for the psychosocial development of first-year students.

These findings support Zeller and Angelini (2003) claim that the traditional residential construction type is better for first year students.

In the current body of literature, researchers investigated individual variables that impacted psychosocial development. These researchers focused on each individual independent variable and did not combine a multitude of covariates to specify a more accurate mean difference due to each independent variable. The current study accomplished this, yielding mean differences for student housing construction types; and the covariates: gender, age, ethnicity, affiliation, involvement, and employment.

The results of this study supported both Pascarella (1985) and other researchers (Pollard, Benton, & Hinz, 1983; Stonewater, 1987; Jordan-Cox, 1987; Greeley & Tinsey, 1988; Jones & Watt, 1999, 2001; Foubert et al., 2005) who investigated the impact of race/ethnicity on psychosocial development. Most directly, this study supports the research identifying race as an accurate predictor of psychosocial development. In the case of this study, race was the only variable identified to significantly affect the combined variable for psychosocial development. The results of this study expanded the work of researchers (Pollard, Benton, & Hinz, 1983; Stonewater, 1987; Jordan-Cox, 1987; Greeley & Tinsey, 1988; Jones & Watt, 1999, 2001; Foubert et al., 2005) by examining the additional covariates which also investigated the psychosocial development of students.

The findings of Pascarella (1985) were also supported by this research project. Pascarella described the benefits attributed to housing as indirect. Pascarella attributed the difference in development to increased availability of interactions between students

and their peers and faculty members due to the students living on campus. The results of this research project identified student housing as not having a significant impact on psychosocial development when other additional variables were included. This research study supported Pascarella's conclusion that psychosocial development was not directly impacted by student housing. Specifically, the results of this study identified a trend between psychosocial student development and student involvement in extracurricular activities, such as clubs and organizations. Such interactions with peers in organizations was identified by Pascarella (1985) as having a direct impact on psychosocial development and housing as only having an indirect relationship.

Practice

The results of this study provide various implications for practice. Caplinger, Hawkins, Coleman, and Jones (2009) stated that some campuses are experimenting with the placement of first-year students in the different housing environments which are traditionally constructed for upper-level students. Zeller and Angelini (2003) described the different residence hall construction types built to address the needs of students of different academic class standings. The elements of the specialized residence hall concept for first-year students are those of the (modified) traditional construction type. The designs of residential facilities designated for upperclassmen are those of the super-suite design. The differences in psychosocial development between the three construction types identified in this study provide the practitioner justification for which environment first-year students should reside. For all three dependent variables, the modified traditional residence hall construction type scored higher than the super-suite design. The

results of this study inform the practitioner that it is in the best interest of first-year students' psychosocial development to be assigned a room within the traditional residence hall design and not the super-suite.

The second implication for practice impacts the chief housing officer and their decisions on construction. Since 2001, American higher education has seen an increase of students who enrolled into college (Howe & Strauss, 2000). This enrollment increase has driven construction of residence halls. Of the university housing facilities constructed since 2001, over half were apartment style or super suite living arrangements (Balogh, et al., 2005). As stated earlier, this study has identified a difference in psychosocial development for first-year students between the three construction types: a) super-suites, b) modified traditional, and c) adjoined suites. These results impact the chief housing officers' allocation of funds for construction if they are planning on constructing new residence halls for first-year students. This study has concluded that modified traditional residence hall construction types have a greater positive impact on the psychosocial development of first-year students. In a time where budgets are spread thinner and practitioners are expected to provide the best services possible while promoting development of the whole student, it would be detrimental for chief housing officers to allocate funds towards an environment which does not best assist psychosocial development.

Such decisions of what to construct also affect the leadership of the university and the division of student affairs. Some institutions in America struggle recruiting students. To increase the students' interest in a college, many campuses want to construct

residence halls which has the latest and greatest technologies, single rooms, and other desires of prospective students. If such a residence hall could attract a prospective student, the university would benefit by increasing their student population and the monetary benefit of tuition and fees. Tuition driven institutions may view the benefit of recruiting students a justification for the placement of first-year students in super suites. The results of this study would allow the university official (president, chief student affairs officer, etc.) to identify the consequences on the psychosocial development of their decisions. The decision of providing the student what they want rather than what is best for their psychosocial development could possibly impact the students' likelihood to be successful and complete their education.

Recommendations for Future Research

As there were a number of significant differences discovered in the impact of university housing construction on psychosocial development of first-year students, additional research is recommended. These recommendations are: (a) replication; (b) refining of the instrument; and (c) inclusion of living/learning communities. First, replication of this study using participants at other institutions is also recommended. The results of this study are only generalizable to similar housing programs at a large, four-year, public, research university in the Southeast since the data were collected at one institution. These results are not generalizable to universities with different construction types. In order to increase the generalizablility of these results, the researcher recommends additional research to be conducted at various types of institutions.

Researchers may consider replicating this study at liberal arts institutions, large land grant institutions, or religious affiliated institutions. Each of these institution types may yield different results than the current study.

Second, further research is needed on refining of the SDTLA instrument. Currently, the instrument only investigates housing environments in terms of living on single-sex residence hall, coed residence hall, on campus apartment, off campus, fraternity/sorority house, home with parent, or home with spouse. The current design does investigate the wide variety of on-campus construction types as defined by AUCHO-I. Comparing these various construction types may yield a greater understanding of the difference between the impact of various construction types of psychosocial development.

Third, additional studies should be conducted to investigate how construction types could impact other than psychosocial development. Future researchers could examine the use of alcohol and smoking to determine which construction type promotes the consumption of alcohol during college. Researchers could also investigate the impact of construction type on student engagement, student disciplinary behavior, and grade point ratio. These additional variables could provide more information on impact of construction type on the first-year student.

Finally, additional studies should be conducted to examine the differences of the impact of construction types and living/learning communities type on psychosocial development. For example these studies could compare standard first-year students to those involved in living/learning environments for various student housing construction

types. The data collected on such a study could provide insight into the impact of the living/learning community on psychosocial development while controlling for various on-campus construction types.

APPENDICES

Appendix A

IRB Approval

Dear Tony and Justin,

The Chair of the Clemson University Institutional Review Board (IRB) validated the protocol identified above using Exempt review procedures and a determination was made on **September 28, 2009,** that the proposed activities involving human participants qualify as Exempt from continuing review under **Category B2,** based on the Federal Regulations (45 CFR 46) ***for all research sites with letters on file with the IRB***. Because my office currently has no research site letters on file, you may not yet begin this study. Once we receive the research site letter from **RESEARCH SITE**, however, you may begin collecting data.

Please remember that no change in this research protocol can be initiated without prior review by the IRB. Any unanticipated problems involving risks to subjects, complications, and/or any adverse events must be reported to the Office of Research Compliance (ORC) immediately. You are requested to notify the ORC when your study is completed or terminated. Please review the Responsibilities of Principal Investigators (available at http://media.clemson.edu/research/compliance/irb/pi-responsibilities.doc) and the Responsibilities of Research Team Members (available at http://media.clemson.edu/research/compliance/irb/research-team-responsibilities.doc) and be sure these documents are distributed to all appropriate parties.

Good luck with your study and please feel free to contact us if you have any questions. Please use the IRB number and title in all communications regarding this study.

Sincerely,

Rebecca L. Alley, J.D.

IRB Coordinator

Office of Research Compliance

Clemson University

223 Brackett Hall

Clemson, SC 29634-5704

Office Phone: 864-656-0636

Fax: 864-656-4475

Appendix B

Instrument- Student Developmental Task Lifestyle Assessment

Student Developmental Task and Lifestyle Assessment

Roger B. Winston, Jr.
Theodore K. Miller
Diane L. Cooper

The *Student Developmental Task and Lifestyle Assessment* is composed of statements shown to be typical of some students and is designed to collect information concerning college students' activities, feelings, attitudes, aspirations, and relationships. The Assessment is designed to help students learn more about themselves and for colleges to learn how to assist students more effectively. The SDTLA's usefulness depends entirely on the care, honesty, and candor with which students answer the questions.

It will require about 25-35 minutes for you to complete this questionnaire.

DIRECTIONS

For each question choose the *one response* that most closely reflects your beliefs, feelings, attitudes, experiences, or interests. Record your responses as directed.

- Consider each statement carefully, but do not spend a great deal of time deliberating on a single statement. Work quickly, but carefully.
- In this questionnaire, "college" is used in a general sense to apply to both two and four year colleges, as well as universities; it refers to all kinds of post-secondary educational institutions.
- If you have no parent, substitute guardian or parent equivalent when responding to items about parent(s).

DEMOGRAPHIC QUESTIONS

Mark your responses where you have been instructed to provide this information. It is crucial that you provide this information.

Name. Provide your name in the space provided on the scan sheet if instructed to do so by the survey administrator.

Sex. Bubble in your sex in the space provided on the scan sheet.

Birth Date. Bubble in the month, day, and year of your birth in the space provided on the scan sheet.

Identification Number. Bubble in the identification number provided by the survey administrator in areas A-J.

For the following questions, please mark your responses in the special codes area K-O.

K. What is your racial or cultural background? *(Select one best response.)*
1 = Black or African American
2 = Hispanic, Latino/a, or Mexican American
3 = Asian American or Pacific Islander
4 = Native American/People
5 = White or Caucasian/European
6 = Bi-racial or multiracial
7 = Other

L. What is your academic class standing? *(Select one.)*
1 = Freshman (first year)
2 = Sophomore (second year)
3 = Junior (third year)
4 = Senior (fourth year)
5 = Other

M. Where do you presently live? *(Select one best response.)*
1 = In on-campus residence hall
2 = At home with parent(s)
3 = At home with spouse/spouse equivalent
4 = In on-campus apartment/trailer/house (not with parent or spouse)
5 = In off-campus apartment/trailer/house (not with parent or spouse)
6 = In fraternity/sorority house

N. Are you an international student? *(Select one.)*
1 = No
2 = Yes

O. How many semesters have you attended a college or university excluding the current semester? (*If 10 or more, select 9.*)

Part 1: Statements 1 –21

Respond to the following items by marking:

A = True
B = False

1. I never regret anything I have done.
2. I am currently involved in one or more activities that I have identified as being of help in determining what I will do with the rest of my life.
3. I followed a systematic plan in making an important decision within the past thirty days.
4. I have personal habits that are potentially dangerous for my health.
5. I like everyone I know.
6. It's important to me that I be liked by everyone.
7. I would prefer not to room with someone who is from a culture or race different from mine.
8. I never get angry.
9. Within the past six months, I have experienced unfamiliar artistic media or performances.
10. During the past 12 months, I have acquired a better understanding of what it feels like to be a member of another race.
11. Since beginning college, my friends have become more frequent sources of support than my parents.
12. I only attend parties where there are plenty of alcoholic beverages available.
13. I never say things I shouldn't.
14. Within the past six months, I have learned about or experienced a culture different from my own through artistic expression.
15. I never lie.
16. I always take precautions (or abstain) to assure that I will not contract a sexually transmitted disease (STD).
17. Within the past 12 months, I have undertaken an activity intended to improve my understanding of culturally/racially different people.
18. I never get sad.
19. Within the past 12 months, I had a conversation or discussion about the arts outside of class.
20. I avoid discussing religion with people who challenge my beliefs, because there is nothing that can change my mind about my beliefs.
21. Within the past 12 months, I have undertaken an activity intended to improve my understanding of people with disabilities.

Part 2: Statements 22 – 68

Respond to the following statements by selecting the appropriate letter:
A = Never (almost never) true of me
B = Seldom true of me
C = Usually true of me
D = Always (almost always) true of me

22. I satisfactorily accomplish all important daily tasks (e.g., class assignments, test preparation, room/apartment cleaning, eating, and sleeping).
23. I seek out opportunities to learn about cultural/artistic forms that are new to me.
24. It bothers me if my friends don't share the same leisure interests as I have.

25. I'm annoyed when I hear people speaking in a language I don't understand.
26. I have made conscious efforts to make the college a better place to attend.
27. I have a difficult time in courses when the instructor doesn't regularly check up on completion of assignments.
28. I pay careful attention to the nutritional value of the foods I eat.
29. I feel comfortable socializing with people who have physical, emotional, sensory, or learning disabilities.
30. I plan my activities to make sure that I have adequate time for sleep.
31. I seek to broaden my understanding of culture (e.g., art, music, or literature).
32. When I wish to be alone, I have difficulty communicating my desire to others in a way that doesn't hurt their feelings.
33. I avoid groups where I would be of the minority race.
34. My classmates can depend upon me to help them master class materials.
35. I don't perform as well in class as I could because I fall short of requirements.
36. I limit the quantity of fats in my diet.
37. Because of my friends' urgings, I get involved in things that are not in my best interest.
38. A person's sexual orientation is a crucial factor in determining whether I will attempt to develop a friendship with her/him.
39. It's more important for me to make my own decisions than to have my parent's approval.
40. I conceal some of my talents or skills so I will not be asked to contribute to group efforts.
41. I have plenty of energy.
42. It's more important to me that my friends approve of what I do than it is for me to do what I want.
43. It's hard for me to work intensely on assignments for more than a short time.
44. I am satisfied with my physical appearance.
45. I feel uncomfortable when I'm around persons whose sexual orientation is different from mine.
46. When in groups, I present my ideas and views in a way that it's clear I have given them serious thought.
47. It's very important to me that I am successful both inside and outside the classroom.
48. My weight is maintained at a level appropriate for my height and frame.
49. My personal habits (e.g., procrastination, time management, assertiveness) get in the way of accomplishing my goals or meeting my responsibilities.
50. I try to avoid people who act in unconventional ways.
51. I accept criticism from friends without getting upset.
52. I get bored and quit studying after working on an assignment for a short time.
53. I eat well-balanced, nutritious meals daily.
54. I find it difficult to accept some of the ways my close friends have changed over the past year.

55. I have difficulty following through with decisions I have made when I discover others (e.g., parents or friends) disagree with these decisions.

56. I have difficulty disciplining myself to study when I should.

57. I exercise for 30 minutes or more at least 3 times a week.

58. I don't socialize with people of whom my friends don't approve.

59. My study time seems rushed because I fail to realistically estimate the amount of time required.

60. I plan my week to make sure that I have sufficient time for physical exercise.

61. I feel confident in my ability to accomplish my goals.

62. I am annoyed when I have to make an accommodation for a person with a disability.

63. I become inebriated from the use of alcohol on weekends.

64. I try to dress so that I will fit in with my friends.

65. It's essential that those important to me approve of everything I do.

66. Even when I'm not particularly interested in a subject, I'm able to complete course requirements satisfactorily.

67. It's important to me that I achieve to the limits of my abilities.

68. I use library materials, resources, and facilities effectively.

Part 3: Statements 69 -73

Respond to the items below by selecting one of the following:

A = Strongly Agree
B = Agree
C = Disagree
D = Strongly Disagree

69. I have arranged my living quarters in a way that makes it easy for me to study, sleep, and relax.

70. I have become more culturally sophisticated since beginning college.

71. Learning to live with students from cultural or racial background different from mine is an important part of a college education.

72. Society has a responsibility to assist people who cannot sustain themselves.

73. As a citizen, I have the responsibility to keep myself well-informed about current issues.

Part 4: Statements 74-87

Respond to the statements below by selecting one of the following:

A = Never
B = Seldom
C = Sometimes
D = Often

74. I wonder what my friends say about me behind my back.

75. I dislike working in groups when there are a significant number of people who are from a race or culture that is different from mine.

76. Within the past year, I have participated in activities that directly benefited my fellow students.

77. Within the past 3 months, I engaged in activities that were dangerous or could be risky to my health.

78. I have used my time in college to experiment with different ways of living or looking at the world.

79. I am confident in my ability to make good decisions on my own.

80. I participate in community service activities.

81. I trust the validity of my values and opinions, even when they aren't shared by my parent(s).

82. I express my disapproval when I hear others use racial or ethnic slurs or put-downs.

83. I have an inner sense of direction that keeps me on track, even when I am criticized.

84. In the past 6 months, I have gone out of my way to meet students who are culturally or racially different from me because I thought there were things I could learn from them.

85. I feel anxious when confronted with making decisions or taking actions for which I am responsible.

86. I meet my responsibilities to my parent(s) as well as I should.

87. Within the past 12 months, I have taken a public stand on issues or beliefs when many friends and acquaintances didn't agree.

Part 5: Statements 88 – 153

Select the *one best* response from the alternatives provided.

88. After a friend and I have a heated argument, I will
    A. Never (almost never) speak to him/her.
    B. Seldom speak to him/her.
    C. Usually speak to him/her.
    D. Always speak to him/her.
    E. I never have disagreements with friends.

89. In terms of an academic major or concentration,
    A. I am uncertain about possible majors and am a long way from a decision.
    B. I have thought about several majors, but haven't done anything about it yet.
    C. I have made a tentative decision about what I major in.
    D. I have made a firm decision about a major, but I still have doubts about whether I have made the right decision.
    E. I have made a firm decision about a major in which I am confident that I will be successful.

90. Thinking about employment after college,
    A. I do not know how to find out about the prospects for employment in a variety of fields.
    B. I have a vague idea about how to find out about future employment prospects in a variety of fields.
    C. I know one source that could provide information about future employment prospects in a variety of fields.
    D. I know several sources that can provide information about future employment prospects in a variety of fields.

91. When thinking about the kind of life I want 5 years after college, I have . . .
    A. not come up with a very clear picture.
    B. a vague picture, but have been unable to identify the specific steps I need to take now.
    C. a clear enough picture that I can identify the step necessary for me to take now in order to realize my dream, even though I haven't done very much about it yet.
    D. a clear enough picture and identified the steps.

92. During this academic year,
    A. I have organized my time well enough for me to get everything completed.
    B. I sometimes had difficulty organizing my time well enough to get everything done.
    C. I often had difficulty organizing my time well enough to get everything done.
    D. I seldom seem able to organize my time well enough to do everything.

93. I participate in the arts (e.g., draw, write, play musical instrument, or sing) just for my own enjoyment.
    A. I never (almost never) do this.
    B. I seldom do this.
    C. I occasionally do this.
    D. I frequently do this.

94. When faced with important decisions this year, I have . . .
    A. relied on others—such as parent(s), friend(s), or teacher(s)—to tell me what to do.
    B. sought information and opinions, but made the final decisions on my own.
    C. relied on myself alone in making the decisions.
    D. attempted to avoid making decisions as much as possible.

95. I have identified, and can list, at least 3 ways I can be an asset to the community.
    A. No, I haven't thought about that much.
    B. No, I don't know what I can contribute.
    C. No, that's not important to me.
    D. Yes.

96. During this academic year,
    A. I have tended to put off most school work, and assignments to the last minute and, as a result, don't do as well as I could.
    B. I have often forgotten about assignments or put them off so long that I was unable to turn them in on time.
    C. I have established a study routine that has enabled me to get most school work and assignments completed on time and to my own satisfaction.
    D. I have established a study routine that has enabled me to get all work and assignments completed on time and to my own satisfaction.

97. When I have experienced stress or tension this term,
    A. I have most often sought relief by listening to music, reading, or visiting friends.
    B. I have most often had a few drinks or beers to relax.
    C. I have most often exercised, worked out, or played a sport.
    D. I have kept on going and ignored the stress.
    E. I have had occasions when it became too much to handle and I had to take days off to relax or rest/sleep.

98. In terms of the array of possible academic majors at this college, I have . . .
   A. not spent much time investigating the possibilities.
   B. talked to some students about their majors, but have not done any systematic investigation.
   C. read the catalog and talked to some students and/or faculty/staff members about possible majors.
   D. made a systematic effort to learn about possible majors and what they entail.
   E. made a systematic effort to learn about possible majors and have carefully looked at my abilities and interests and how they fit different majors.

99. Within the past 6 months,
   A. I haven't seriously thought about possible post-college jobs or careers.
   B. I have thought about possible post-college jobs or career, but haven't done much about exploring the possibilities.
   C. I have asked relatives, faculty members, or others to describe positions in the fields in which they are working.
   D. I have taken definite steps to decide about a career, such as visiting a counselor, placement center, or persons who hold the kinds of positions in which I am interested.

100. If something were to prevent me from realizing my present educational plans, I have . . .
   A. no idea what else I might pursue.
   B. a vague notion about acceptable alternatives.
   C. several acceptable alternatives in mind, but I haven't explored them very much.
   D. several acceptable alternatives in mind, which I have explored in some detail.

101. When I have heated disagreements with friends about matters such as religion, politics, or philosophy, I . . .
   A. am likely to terminate the friendship.
   B. am bothered by their failure to see my point of view but hide my feelings.
   C. will express my disagreement, but will not discuss the issue.
   D. will express my disagreement and am willing to discuss the issue.
   E. don't talk about controversial matters.

102. I have made a positive contribution to my community (residence hall, campus, neighborhood, or hometown) within the past 3 months.
   A. No, that isn't important to me.
   B. No, I don't know what I could do to make a positive contribution.
   C. No, but I have tried to find ways.
   D. Yes.

103. In terms of an academic major/concentration, I have…
   A. determined what all the requirements are and the deadlines by which things must be done, for the major I have chosen.
   B. investigated the basic requirements for graduating with a degree in my academic major.
   C. a general idea about the courses and other requirements needed in my major.
   D. not paid much attention to the requirements for my major; I depend on my advisor or others to tell me what to take.
   E. yet to decide on an academic major.

104. I have decided the place (if any) that marriage has in my future.
   A. No, I will just wait to see what develops.
   B. No, I don't think about it.
   C. No, but I know what I would like to have happen.
   D. Yes, I have made a definite decision.

105. I am familiar with sources of help on campus (e.g., tutoring, counseling, academic information, library research tools and procedures, and computers).
    A. I really don't know much about these things.
    B. I know about a few.
    C. I know about most of them.
    D. I know about all of them.

106. When I don't agree with someone in authority (e.g., professor, administrator), I . . .
    A. never express my opinion.
    B. express my opinion only when I am angry.
    C. express my opinion when asked.
    D. express my opinion if given a chance.
    E. avoid dealing with persons in position of authority if possible.

107. Within the past 3 months, I have taken an active part in a recycling activity/program.
    A. No, recycling is too much trouble.
    B. No, I don't know where to dispose of materials.
    C. Yes, I have participated occasionally.
    D. Yes, I have participated regularly.
    E. Yes, I have participated and promoted recycling activities to others.

108. I use tobacco products (smoke, chew, or dip).
    A. Never.
    B. Once a week or less.
    C. Several times a week.
    D. Most days.
    E. Everyday.

109. In terms of the labor market demand for people with a degree in my major, in the career area in which I am most interested,
    A. I have yet to decide on a career area and/or academic major.
    B. I don't have much of an idea of what I will face upon graduation.
    C. I have a general, although somewhat vague, picture of what I will face upon graduation.
    E. I have investigated things enough to be pretty clear about what I will face upon graduation.

110. I can clearly state my plan for achieving the goals I have established for the next 10 years.
    A. No, because I have no specific goals for the next 10 years.
    B. No, because I don't like making detailed plans for long-range goals.
    C. No, because I haven't worked out my plan completely.
    D. Yes.

111. Within the past month,
    A. I took the initiative to bring several people together to resolve a mutual problem.
    B. I joined with several people to resolve a mutual problem.
    C. I have not encountered a problem that needed a group effort to solve.
    D. I have avoided situations that required me to work with other people in solving problems.

112. Within the last 12 months, I have attended a play or classical music concert when not required for a class.
    A. Yes
    B. No, I don't like those kinds of things.
    C. No, I just haven't gotten around to it.
    D. No, there aren't such things available here.

113. If I thought my friends would disapprove of a decision I made, I would most likely . . .
   A. try to keep them from finding out (keep it a secret).
   B. tell them and pretend I didn't care what they thought.
   C. tell them and explain my reasoning for this decision.
   D. make up something to mislead them from knowing the truth.

114. In the past 12 months, I have taken an active part in activities or projects designed to improve the community, such as a charity drive, clean up campaign, or blood drive.
   A. Never
   B. Once
   C. Twice
   D. Three times
   E. Four or more times

115. I have more than one drink (i.e., 1.5 ounces of liquor, 5 ounces of wine, or 12 ounces of beer).
   A. Never
   B. Once a week or less
   C. Two to three times a week
   D. Most days
   E. Everyday

116. Over the past 12 months at this college, I have . . .
   A. taken the initiative to set up conferences with an academic advisor.
   B. kept appointments with an academic advisor when she/he scheduled them.
   C. avoided dealing with my academic advisor.
   D. not investigated how obtain academic advising.
   E. not been at this college long enough to get involved in academic advising.

117. In the past year,
   A. I have discussed my career goals with at least 2 professionals in the field that interests me most.
   B. I have had minimal exposure to people in the career field that interests me most.
   C. I know several professionals in the career field in which I am most interested, but I haven't talked to them about entering the field.
   D. I have yet to decide on a career area.

118. My plans for the future are consistent with my personal values (for example, importance of service to others, religious beliefs, importance of luxuries, desire for public recognition).
   A. No, my future plans are unclear and I am undecided about my personal values.
   B. No, my future plans are clear, but I am undecided about my personal values.
   C. No, my future plans are unclear, but I am clear about my personal values.
   D. Yes, I have recently begun to think about how my values will shape my future.
   E. Yes, I thought about this a lot and have a clear plan.

119. Each day,
   A. I depend on my memory to make sure that I get done what needs to be done, and that works for me.
   B. I keep a calendar or make a "To Do" list of what needs to be done each day and that works for me.
   C. I dislike planning what I need to do; I just let things happen and that works for me.
   D. I don't make detailed plans about what I need to do each day, and as a result I forget important things.

120. Within the past 12 months, I have visited a museum or an art exhibit when not required for a class.
    A. Yes
    B. No, I don't like those kinds of things.
    C. No, I just haven't gotten around to it.
    D. No, there aren't such things available here.

121. In regard to social issues (e.g., homelessness, environmental pollution, or AIDS),
    A. I don't think much about them.
    B. I am concerned, but haven't taken any specific actions.
    C. I contribute money to organizations that address the issue(s), but that is the extent of my involvement.
    D. I am actively involved in organizations that address the issues(s).

122. I have a mature working relationship with one or more members of the academic community (faculty member, student affairs/services staff member, administrator).
    A. Yes
    B. No, I don't like dealing with them.
    C. No, I have tried to form relationships, but haven't been successful yet.
    D. No, I don't know any.
    E. No, I don't have time for that kind of thing.

123. When thinking about occupations I an considering entering,
    A. I don't know what is required in order to be competitive for a job.
    B. I haven't decided which occupations interest me most.
    C. I have a general idea of what is required.
    D. I can list at least 5 requirements.

124. I have developed strategies to maximize my strengths and to minimize my weaknesses in order to accomplish my goals in life.
    A. No, I don't know myself that well.
    B. No, I haven't figure out how to do that.
    C. No, I don't have a clear picture of my life goals.
    D. Yes, I have done this, but I'm not very confident about my strategies.
    E. Yes, I have done this, and I am confident that my strategies will be effective.

125. I have one or more goals that I am committed to accomplishing and have been working on for over a year.
    A. No, I don't like making definite goals.
    B. No, I have tried, but have been unable to follow through.
    C. No, I have difficulty making realistic long-range plans.
    D. Yes.

126. Over the past year, I have frequently participated in cultural activities.
    A. No, that isn't something that I enjoy or consider important.
    B. No, there haven't been any cultural activities available in which I could participate.
    C. I have attended when others have encouraged or invited me.
    D. Yes, I have taken advantage of as many opportunities as I could manage.
    E. Yes, only when required by the college.

127. Within the past 12 months, I contributed my time to a worthy cause in my community (campus or town/city).
    A. No
    B. 1 – 10 hours
    C. 11 – 20 hours
    D. 21-30 hours
    E. 31 or more hours

128. Within the past 12 months,
   A. I haven't attended any non-required lectures, programs, or activities dealing with serious intellectual subjects.
   B. I have attended 1 or 2 non-required lectures or programs dealing with serious intellectual subjects.
   C. I have attended 3 or 4 lectures or programs dealing with serious intellectual subjects that were not required for any of my courses.
   D. I have attended 5 or more lectures or programs dealing with serious intellectual subjects that were not required for any of my courses.

129. In terms of practical experience in the career area I plan to pursue after college, I have . . .
   A. yet to decide on a post-college career area.
   B. had no experience.
   C. had very little experience.
   D. had some experience.
   E. had a great deal of experience.

130. I am involved in hobbies or leisure activities today that I see myself continuing to pursue 10 years from now.
   A. Yes
   B. No
   C. I don't know

131. In addition to my academic studies,
   A. I spend much of my free time involved in organized activities on campus or in the community.
   B. I spend most of my free time "goofing off" or watching television.
   C. I spend most of my free time with friends doing things we enjoy.
   D. I spend most of my time working to support myself and/or caring for my family.

132. In regards to college organizations specifically related to my chosen occupational field, I have . . .
   A. yet to decide on a post-college occupational field.
   B. investigated joining one or more, but have not actually joined.
   C. joined one or more, but am not very involved.
   D. joined one or more and am actively involved.

133. I have investigated what I must do in order to satisfy my need or desire for material goods, such as cars, clothes, and a home once I complete my education.
   A. No, I'm unsure about how important material goods are to me.
   B. No, I haven't thought much about what I will need to do.
   C. No, I have given some thought to this, but things are still unclear.
   D. Yes, I'm somewhat sure that I will be able to satisfy my needs/desires.
   E. Yes, my current plans are likely to meet my needs or desires.

134. I have formed a personal relationship (friendly acquaintanceship) with one or more professors.
   A. Yes, but I find it difficult to talk to him/her (them).
   B. Yes, we often enjoy interacting with each other.
   C. No, I would like to but haven't taken any action.
   D. No, I would like to and have tried unsuccessfully.
   E. No, because that isn't important to me.

135. Considering beginning-level positions in business, industry, government, or education for which I would be eligible when I complete my education, I . . .
   A. can name 3 or more.
   B. can name only 2.
   C. can name only 1.
   D. cannot name any.
   E. haven't made a decision about my academic major/concentration; therefore, I don't know for what I might be qualified.

136. I have considered the kinds of tradeoffs (in areas such as family time, leisure time, job status, income, or time with friends) I will need to make in order to have the kind of lifestyle I want to have 5 years after completing my education.
   A. I haven't thought about this at all.
   B. I have thought about this in general.
   C. I have a fairly clear idea of the tradeoffs required.
   D. I have a very clear idea of the tradeoffs required.

137. I have been actively engaged in a student organization or college committee in the past 6 months.
   A. Yes
   B. No, I don't have time because of my job(s) and/or family responsibilities.
   C. No, I am not interested.
   D. No, I haven't been in college long enough.
   E. No, but I plan to do so soon.

138. When thinking about narrowing the number of career areas I wish to explore,
   A. I have identified specific personal abilities and limitations which I can use to guide my thinking.
   B. I have some general ideas about what I would be successful in.
   C. I have only a vague sense of where I can best use my skills or minimize my shortcomings.
   D. I have never thought about careers in this way.

139. I am purposefully developing intellectual skills and personal habits that will assure that I continue to learn after completing my formal education.
   A. I haven't thought about this.
   B. I rely completely on course requirements to do this.
   C. I think about this some times.
   D. I do this systematically.

140. Within the past 3 months, I have had a serious discussion with a faculty member concerning something of importance to me.
   A. No, I don't like talking to faculty members.
   B. No, I have tried, but was unsuccessful.
   C. No, I haven't found one who seemed willing to interact in that way.
   D. Yes, I initiated such a discussion.
   E. Yes, I responded to a faculty member's initiative.

141. Within the past 3 months,
   A. I haven't thought seriously about my career.
   B. I have read about a career I am considering.
   C. I have been involved in activities directly related to my future career.
   D. I have thought about my career, but things are still too unsettled for me to take any action yet.

142. I have weighed the relative importance of establishing a family in relation to other life goals.
   A. No, my desire to establish a family is too uncertain.
   B. No, my life goals are too uncertain.
   C. Yes, but my priorities tend to change.
   D. Yes, my priorities about these goals are clear.

143. While in college I have acquired practical experience directly related to my educational goals through an internship, part-time work, summer job, or similar employment.
   A. No, I haven't been enrolled long enough.
   B. No, I haven't thought about it very much.
   C. No, I have yet to establish any specific educational goals.
   D. Yes, I did it to satisfy program requirements.
   E. Yes, I did it on my own initiative.

144. I have established a specific plan for gaining practical experience in the career area I plan to pursue after college.
   A. No, I have yet to decide on a career area.
   B. No, but that is something I should be doing.
   C. No, that isn't something I want to do.
   D. Yes, but I haven't actually acted on my plan.
   E. Yes, and I have begun implementing my plan.

145. I have considered how my present course of study will impact my goals for the future.
   A. No, I haven't thought about this at all.
   B. Yes, I have thought about this, but it's unclear how my studies will shape my future.
   C. Yes, I have a fairly clear idea bout how my studies will shape my future.
   D. Yes, I have a very clear picture of how my studies will shape my future.

146. I have developed a financial plan for achieving my educational goals.
   A. No, my parent(s) are taking take of it.
   B. Yes, I have a plan which depends on the continuation of the present level of funding.
   C. No, I haven't thought much beyond the current term.

147. I carefully investigated the intellectual abilities and necessary academic background needed to be successful in my chosen academic major.
   A. No, I have yet to make a definite decision about an academic major/concentration.
   B. No, I chose my major/concentration solely on the basis of what I enjoyed most.
   C. No, I have narrowed the choice down to a few areas, but haven't really investigated majors in that way.
   D. No, I never thought about it in that way.
   E. Yes.

148. I am acquainted with at least one person who has a disability.
   A. Yes.
   B. No, I have not met anyone with a disability.
   C. No, I am not interested in knowing anyone with a disability.

149. Within the past 3 months, I have read a non-required publication related to my major field of study.
   A. No, I have yet to decide on an academic major/ field of study.
   B. No, I don't have time to read such things.
   C. No, that would be too boring.
   D. Yes.

150. I am acquainted with at least 3 persons who are actively involved in the kind of work I visualize for myself in the future.
   A. Yes.
   B. No, I haven't met many people doing the work I visualize for myself.
   C. No, I have yet to decide on a post-college occupational area.
   D. No, I don't think that is very important

151. I often have trouble visualizing day-to-day work in the career area I have selected.
    A. Yes, because I have yet to decide on a career area.
    B. Yes, because I don't know what routine work in my career area is really like.
    C. Yes, because I don't like to think about that.
    D. No, I can visualize work in that area, but I'm not sure that it's realistic.
    E. No, I have a clear and realistic picture of work in my career area
152. Within the past 12 months, I have had a serious conversation about my long-term educational objectives with an academic advisor or other college official.
    A. No, I don't know to whom to talk.
    B. No, I have tried, but no one will help me.
    C. No, but I want to do that.
    D. No, I don't want my options limited.
    E. Yes.
153. While in college, I have visited a career center or library to obtain information about a chosen career.
    A. No, but I will do that when I find time.
    B. No, I don't need career information.
    C. No, there is no place or person that deals with careers on my campus.
    D. Yes.

END

Appendix C

Instrument- Additional Questions

1. In which of the following residential environments do you reside?

   *(**Please note:** Question 1 originally had residence hall names listed as responses)*

   a. Adjoined Suites

   b. Super Suites

   c. Modified Traditional Design

2. Are you currently a member OR in the process of becoming a member of a Greek Organization recognized by RESEARCH SITE?

   a. Yes

   b. No

3. Throughout this semester, how many hours did you work during an average work week?

   a. Greater than 20 hours per week,

   b. Between 11 and 20 hours per week

   c. Between 1 and 10 hour(s) per week

   d. I am not employed.

4. How many hours per week do you currently dedicate to extracurricular activities (clubs, organizations, athletics, etc.)?

   a. Greater than 20 hours per week,

   b. Between 11 and 20 hours per week

   c. Between 1 and 10 hour(s) per week

   d. I am not involved with any extracurricular activities

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